CULTURAL RESOURCE MANAGEMENT PLAN

Fayette Historic Townsite

Delta County, Michigan

DMB Contract Order Number Y60211
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SSOE Project Number 966123-00
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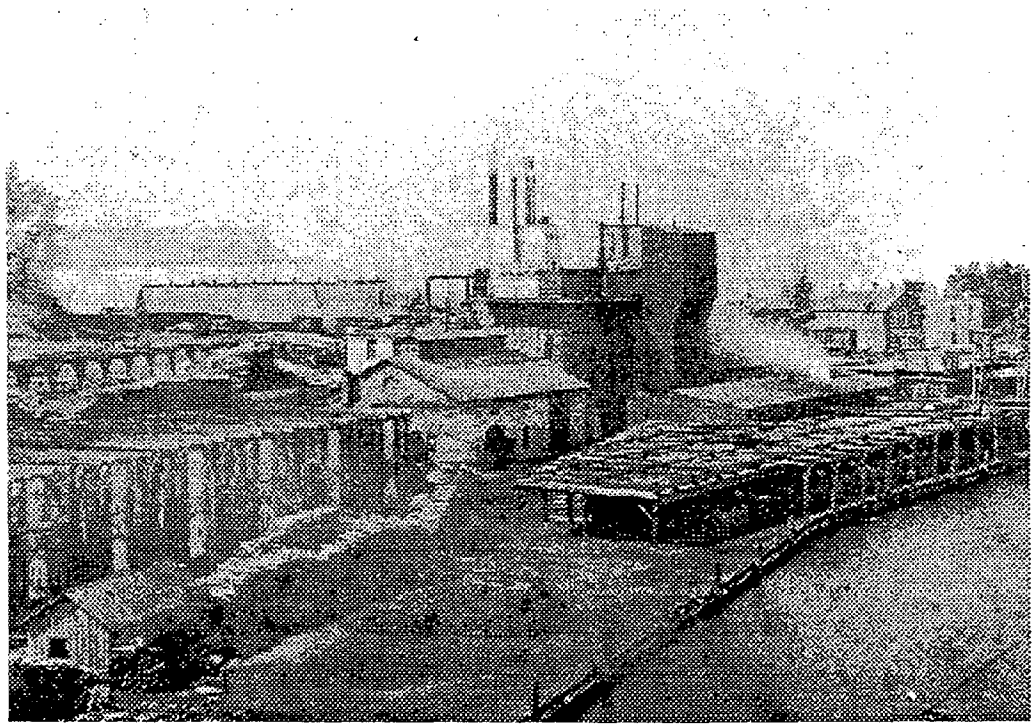

SSOE, Inc.
Quinn Evans / Architects
Cultural Resource Consortium
Seebohm, Ltd.

Final Submission
December 1996

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Executive Summary

Part A: Executive Summary

Statement of Significance

Fayette is the most intact, post Civil War-era, charcoal iron-smelting company town in the United States. The town is located at a remote site on the Garden Peninsula in Michigan's Upper Peninsula. This rural industrial site, established by the Jackson Iron Company in 1867, and in operation until 1891, contained over sixty industrial, administrative and commercial, and residential components. Today the townsite retains the well preserved masonry walls of the furnace complex - with its pair of stacks and casting rooms, boiler/blower rooms, and hot blast oven ruins - along with other elements associated with the iron-smelting operation. These include the remains of charcoal and iron kilns, traces of railroad engineering, a dolomite quarry, slag deposits, and pilings from the harbor's extensive wharfs. Sixteen buildings have survived, including the company office, machine shop, town hall (a commercial building with an "opera house" upstairs), hotel/boarding house, and the superintendent's and ten other houses, plus the masonry walls of the company store/warehouse. The townsite also contains the sites of additional housing, a livery stable and stock and hay barns, a saw mill, carpenter and blacksmith shops, grain elevators, an ice house, a jail, and a race track and baseball diamond. Outside of the immediate townsite are a cemetery and the remains of a Catholic church and two workers' taverns. The Fayette townsite surrounds Snail Shell Harbor, formed by a small dolomite peninsula jutting from the west side of the Garden Peninsula into Lake Michigan's Big Bay de Noc. The protected nature of the bay, the lack of modern development in proximity to the site, and minimal amenities lend a rare degree of integrity to the cultural landscape. The area's nearby dolomite cliffs, extensive hardwood forests, and the protected harbor all contributed to the Jackson Iron Company's decision in 1864 to establish a smelter at this site. These features provide a backdrop to the townsite, reminding visitors of the appeal of Snail Shell Harbor to early industrialists.

Fayette reflects the rapid industrialization of the United States, led by the growth of the iron and steel industries, and the development of a national economy that took place as the industrial frontier moved west. Fayette became a leading producer of Michigan charcoal iron used in the American steel industry. The importance of the contribution made to this nation's industrial revolution in the late nineteenth century makes the Fayette townsite historically significant at both the state and national level. Its dramatic natural setting, and its remarkable intact condition, comprise a cultural landscape without equal in the Midwest, making it a premier location for visitation and interpretation. What is unusual about Fayette, in addition to its beautiful setting, is the variety of historic resources which have been preserved here, the unusually high overall integrity of the site and its historic resources, both above and below ground -- the product both of the site's isolation and its long period of protection as a state park -- and the wealth of the written record that has survived that will, in the future, facilitate interpretation of all aspects of the site.

Evaluation of Current Conditions

The Fayette townsite has evolved through four distinctive episodes of time that reflect the townsite's successive tenure of ownership, occupancy, and development. The first episode reflects the prehistoric and early settlement history of the site, the second episode encompasses the period of industrial activity at Fayette, and the third episode includes the years that Fayette was a destination for vacationers and fishermen. The fourth episode begins with the State of Michigan's acquisition of Fayette and continues through today. The most apparent physical changes throughout these episodes have been the addition, and subsequent subtraction, of buildings within and around the townsite. However, there were also significant changes in the vegetation, circulation patterns, and natural features of the landscape. In spite of over one hundred years passage of time since the abandonment of Fayette as an industrial company town, Fayette has significant remnants of each episode. The markings on the landscape of former inhabitants remain throughout the site.

At the time of acquisition of Fayette by the State of Michigan in 1959, the entire townsite was in a dilapidated condition. Efforts over the past three decades have addressed that condition both through regular maintenance and periodic major restoration and stabilization projects. The last study of the overall townsite, prior to this Cultural Resource Management Plan, was prepared in 1974. It provided the impetus for major restoration and stabilization projects that took place in the immediate years that followed. The overall conditions of the original fabric, documented in the current Cultural Resource Management Plan, indicate the need for another major program of preservation and stabilization for the following reasons:

1. Due to weathering caused by environmental forces, accelerated deterioration of extant historic fabric at the exterior of the buildings is occurring. Without preservation, an increasing amount of this fabric will deteriorate beyond repair and its

replacement will become necessary, thus diminishing the historic integrity of the buildings and increasing the cost of the treatment.

2. The historic fabric, replaced since 1974, will prematurely require further replacement if preservation actions are not undertaken at this time. The newer materials, especially the replacement window sashes, are deteriorating at an accelerated rate due to the lack of a protective finish.

3. Past stabilization of the masonry foundation ruins is being impacted by the continued presence of trees and plants in and immediately surrounding these ruins.

4. Without preservation actions to the exteriors of the buildings, both treatments done for interpretive purposes and extant historic fabric at the interiors of the buildings will be at risk of damage and deterioration from water infiltration.

5. Barrier-free access to and within the townsite, and into the individual buildings that are open to the public, is deficient with respect to the requirements of the State of Michigan's Barrier-Free Design Code. These requirements are equal to or more stringent than the physical design requirements identified in the Americans with Disabilities Act.

6. The absence of an active fire detection system in the buildings increases the danger of the loss of multiple buildings in the event of a fire. The unrestricted access to the townsite by boat, and the proximity of the campground, increases the risk of fire.

7. Recognition of historic landscapes as critical components of the preservation and interpretation of historic sites is a fairly recent phenomenon. Although the landscape at Fayette has been well maintained since the site was acquired by the State of Michigan, maintenance has been routine, and has not focused on the need to manage and maintain vegetation as a resource that interprets the site.

8. With some important exceptions, both extant and non-extant historic site features have been treated somewhat casually over the years. Much less prominent than the buildings, features such as the race track and remnants of the railroad trestle need to be adequately managed, protected, and interpreted.

9. Partially by design and partially by nature, views of the townsite from various vantages are nothing short of spectacular. These views are enhanced by the isolation of the site from modern intrusions. It is critical to the integrity of the site to retain these views and the sense of isolation through proper management of the vegetation.

10. Circulation throughout the site largely reflects the historic pattern of the roads, but these routes, for the most part, have been overlooked as a cultural remnant requiring thoughtful treatment and interpretation.

Without a major preservation program to address the issues above, the accelerated loss of historic fabric and the risk due to inadequate protective measures, will diminish the historic integrity of the Fayette Historic Townsite.

Recommendations for Preservation of the Townsite

The goal of the Michigan Department of State, Michigan Historical Center, and the Department of Natural Resources is to continue to preserve the structures and landscape at Fayette in order to interpret its role as a nineteenth century industrial community in a unique environment - remote, rural, and scenic. Preservation is the act or process of applying measures necessary to sustain the existing form, integrity, and materials of a historic property. At Fayette, a preservation approach means keeping the original materials in place wherever possible, respecting changes that have happened over time instead of attempting to restore buildings or the landscape to a particular point in time, and reconstructing only such features that are essential to the interpretation of the site.

The following specific recommendations address the needs of the Fayette State Historic Park and those required by the existing conditions of the townsite:

1. It is recommended that preservation treatments be implemented at all extant historic fabric to mitigate accelerated deterioration caused by weathering. Preservation treatment, as part of a major program of action, will retain the maximum

amount of historic fabric at the townsite. Following the implementation of this treatment approach, cyclical observation and subsequent maintenance of remaining fabric should be carried out on a seasonal basis.

2. The application of a paint finish to the exterior of all of the wood frame buildings at the townsite needs to occur in order to mitigate the continual deterioration of both the extant historic and replacement fabric. Following an overall treatment, proper systematic repainting and repair should become part of a yearly maintenance plan.

3. All potentially detrimental vegetation, especially trees with significantly large roots, should be removed from the areas adjacent to the townsite's masonry foundation ruins. The employment of a mason by the Fayette State Historic Park for continuous repair and stabilization of the extant foundations would be the most proactive approach toward the preservation of these cultural resources.

4. Preservation treatments need to occur at several of the townsite's historic buildings immediately because they are at risk of damage and deterioration from water infiltration that is detrimental to the buildings' historic interior fabric. This is especially important at those buildings that have already received interior treatment for interpretative purposes, and are in danger of suffering damage.

5. Barrier-free access should be provided into and within the historic townsite to allow all visitors the ability to appreciate this significant cultural resource.

6. It is essential that a properly engineered and installed fire detection system, that is tied to a central panel with twenty-four hour monitoring, be installed at the townsite. This system would provide early warning to at least minimize and contain to as small an area as possible any damage to the historic fabric should a fire occur. It is also recommended, due to the unrestricted access to the site via the boat docks and campground, that a twenty-four hour security presence be established during the park season. This on-site presence would increase the early warning of fire, and, together with a proper fire detection system, provide a high level of safety and security at the townsite.

7. Management practices need to be implemented to preserve and enhance the variety of plant communities and stages of forest succession that are evident at Fayette. A management program also should focus on the initial and phased removal of invasive and overrepresented native species.

8. Protective measures need to be taken to enhance the preservation of historic site features that contribute to the townsite. Visitor amenities need to be limited to those that are essential for visitor safety and comfort. Their design and placement should be unobtrusive, and they should be clearly distinguishable from the historic elements.

9. Steps need to be taken to preserve or improve panoramic and focused views, mainly through the selective trimming and removal of vegetation. High priority views include the view from the overlook trail and visitor center to the townsite and the view from the end of the visitor center path toward the townsite.

10. Roads should be maintained or selectively introduced to represent the historic configuration, both to provide adequate access through the site and to reflect historic patterns. Routes that led to Fayette, such as County Road 483 and the railroad bed, should be reintroduced or interpreted so that Fayette is not portrayed as an isolated community.

Following the implementation of the outlined major program of preservation and stabilization actions, a systematic maintenance program needs to be undertaken at Fayette on a seasonal basis. This cyclical maintenance will not only protect the investment of the major preservation and stabilization program, it will prolong the life and integrity of the historic fabric at all of the townsite's historic structures.

Summary Statement

Fayette is an unparalleled nineteenth century industrial townsite in the United States. Over twenty years of time have passed since the last major preservation and stabilization program was initiated at the townsite. A major program for continuing the preservation and stabilization of the building and landscape resources at Fayette is essential at this time to maintain its historic, architectural, and cultural integrity. A new major preservation initiative will ensure that Fayette continues to be a premier location for visitation and interpretation into the twenty-first century.

Part B:

Introduction

Part B: Introduction

Background

The Fayette Historic Townsite, which is part of Fayette State Historic Park, is located on the Garden Peninsula in Delta County, Michigan near the mouth of Lake Michigan's Big Bay De Noc. Fayette lies eight miles south of the Village of Garden, on state Route 183. Fayette was an Upper Peninsula iron-smelting town owned and operated by the Ohio-based Jackson Iron Company. Built in 1867, the furnace town became a leading producer of Michigan charcoal iron used in the American steel industry. However, within twenty-five years of its opening, production costs rose and the market for the product fell, and, subsequently, the company's enterprise was abandoned in 1891. As a result, the majority of Fayette's residents, who numbered nearly five hundred, moved away. Those that remained turned to farming or commercial fishing for their livelihood. The town's hotel remained open as a summer resort through the early part of the twentieth century, and several of the former homes of the company's supervisors were used as cottages through the 1950s. Fayette was acquired by the State of Michigan and became a state park in 1959. Since 1974, the Michigan Department of Natural Resources (DNR) and the Michigan Department of State, Michigan Historical Center (MHC) have jointly administered Fayette both as part of a state park and as a historic site. Today, as a historic townsite, Fayette serves as a museum village where visitors can learn about one of Michigan's most important contributions to our nation's industrial revolution. Fayette is listed in the National Register of Historic Places, and it will be nominated in 1996 for listing as a National Historic Landmark.[1]

Project Team Members

Following the objectives of the Michigan Historical Center and the Department of Natural Resources, the State of Michigan, Department of Management and Budget, has engaged the professional services of SSOE, Inc., an architectural and engineering firm, with consultant services provided by Quinn Evans / Architects, an architectural firm specializing in historic preservation, to prepare a Cultural Resource Management Plan for the Fayette Historic Townsite at Fayette State Historic Park, Delta County, Michigan. Team members providing support to Quinn Evans / Architects include: Cultural Resource Consortium, a firm specializing in cultural landscape analysis, Seebohm, Ltd., a firm specializing in paint analysis and architectural conservation, and Patrick Martin, who specializes in archeological resource analysis.

The team has gathered information through physical investigation, in addition to that which had been previously researched and collected, to develop a comprehensive cultural resource management plan. The plan provides background information as well as specific recommendations needed to preserve, maintain, and interpret the Fayette Historic Townsite. The plan contained herein is meant to ensure regular maintenance, consistent interpretation, and ordered preservation work at the site. Furthermore, the plan is meant to be used to assist the State of Michigan in obtaining resources and support for future preservation efforts at Fayette.

Investigation Methodology

Before determining the recommendations included in the Cultural Resource Management Plan, the project team conducted an in-depth study of previously researched documentary material related to the townsite. A thorough physical investigation of the townsite was undertaken to document the site's existing resources, conditions, and characteristics, in order to gain insight into the construction and evolution of the townsite, and to provide a basis for its future treatment.

This report is based on documentary evidence collected to date, limited physical probing, and architectural and landscape inspection. Of necessity, the research is not concluded with the completion of this report. Rather, it will be supplemented in the future by further information gathered through additional archeological investigation, and by subsequent documents and information as they are discovered.

Acknowledgment

This report is funded in part by a grant from the National Oceanic and Atmospheric Administration (NOAA) under the Coastal Zone Management Act, provided through the Michigan Coastal Management Program, Department of Environmental Quality. The views expressed herein are those of the authors and do not necessarily reflect the views of NOAA or any of its sub-agencies. Additional funding was provided by the Michigan Historical Center, Michigan Department of State.

Part A Endnotes:

[1] State of Michigan, Department of Management and Budget. "Request for Proposal for the preparation of a Cultural Resource Management Plan for the Fayette Historical Townsite, Fayette State Historic Park, in Delta County, Michigan." (Lansing, MI: 1996), 9.

Part C:

Historic Overview

Part C: Historic Overview

Summary of Historic Documentation

Comprehensive historic accounts of Fayette were provided to the project team for the preparation of this Cultural Resource Management Plan. One document, which follows in its entirety, is the current National Historic Landmark Nomination Form for the Fayette Historic Townsite, prepared by the Michigan Historical Center. The following text was prepared separately from this report and is reproduced, as prepared by the Michigan Historical Center, to provide a historic overview of Fayette.

NPS Form 10-900 OMB No. 1024-0018
(Rev. 10-90)

United States Department of the Interior
National Park Service

NATIONAL REGISTER OF HISTORIC PLACES
REGISTRATION FORM

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1. Name of Property

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historic name ____Fayette_____

other names/site number ____N/A_____

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2. Location

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street & number _Fayette Historic State Park, end of M-183 not for publication N/A
city or town __Fairbanks Township_____ vicinity N/A
state __Michigan_____ code _MI_ county __Delta_____ code _041
zip code __49835___

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3. State/Federal Agency Certification

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As the designated authority under the National Historic Preservation Act of 1986, as amended, I hereby certify that this _X__ nomination ____ request for determination of eligibility meets the documentation standards for registering properties in the National Register of Historic Places and meets the procedural and professional requirements set forth in 36 CFR Part 60. In my opinion, the property _X__ meets ____ does not meet the National Register Criteria. I recommend that this property be considered significant _X_ nationally ___ statewide ___ locally. (___ See continuation sheet for additional comments.)

5. Classification

Ownership of Property (Check as many boxes as apply)

___ private
___ public-local
_X_ public-State
___ public-Federal

Category of Property (Check only one box)

___ building(s)
_X_ district
___ site
___ structure
___ object

Number of Resources within Property

Contributing	Noncontributing	
_16__	__5__	buildings
_56__	__3__	sites
__8__	__2__	structures
_____	__1__	objects
_80__	_11__	Total

Number of contributing resources previously listed in the National Register __75_

Name of related multiple property listing (Enter "N/A" if property is not part of a multiple property listing.)
____N/A_____

6. Function or Use

Historic Functions (Enter categories from instructions)

Cat:	__Domestic_____	Sub:	__Single dwelling_____
	__Domestic_____		__Multiple dwelling_____
	__Commerce/trade_____		__Department store_____
	__Recreation and culture____		__Auditorium_____
	__Industry/processing/extraction		__Manufacturing facility____
	__Transportation_____		__Water-related_____
	__Agriculture/subsistence___		__Animal facility_____
	__Funerary_____		__Cemetery_____

Current Functions (Enter categories from instructions)

Cat:	__Recreation and culture____	Sub:	__Museum_____
	__Recreation and culture____		__Outdoor recreation_____
	__Funerary_____		__Cemetery_____
	_____		_____
	_____		_____
	_____		_____

7. Description

Architectural Classification (Enter categories from instructions)
__Other: charcoal-iron furnace complex___
__Other: vernacular gable-roof buildings_
_____

Materials (Enter categories from instructions)

foundation __	Other: dolomite_____
roof _____	Wood/shingle_____
walls _____	Wood/weatherboard_____
_____	Other: dolomite_____
other _____	Brick_____

_____

Narrative Description (Describe the historic and current condition of the property on one or more continuation sheets.)

8. Statement of Significance

Applicable National Register Criteria (Mark "x" in one or more boxes for the criteria qualifying the property for National Register listing)

_X__ A Property is associated with events that have made a significant contribution to the broad patterns of our history.

____ B Property is associated with the lives of persons significant in our past.

_X__ C Property embodies the distinctive characteristics of a type, period, or method of construction or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components lack individual distinction.

_X__ D Property has yielded, or is likely to yield information important in prehistory or history.

Criteria Considerations (Mark "X" in all the boxes that apply.)

____ A owned by a religious institution or used for religious purposes.

____ B removed from its original location.

____ C a birthplace or a grave.

_X__ D a cemetery.

____ E a reconstructed building, object,or structure.

____ F a commemorative property.

____ G less than 50 years of age or achieved significance within the past 50 years.

Areas of Significance (Enter categories from instructions)
__Industry_____
__Social History_____
__Archaeology/prehistoric_____
__Archaeology/historic-non-aboriginal
__Architecture_____
_____
_____
_____

Period of Significance __3000 BC-1000 AD_____
__1867-1890_____
_____

Significant Dates __1867__
__1890__
_____

Significant Person (Complete if Criterion B is marked above)
__N/A_____

Cultural Affiliation __Late Archaic_____
__Middle Woodland_____
_____

Architect/Builder __Various contractors_____
_____

Narrative Statement of Significance (Explain the significance of the property on one or more continuation sheets.)

9. Major Bibliographical References

(Cite the books, articles, and other sources used in preparing this form on one or more continuation sheets.)

Previous documentation on file (NPS)
___ preliminary determination of individual listing (36 CFR 67) has been requested.
_X_ previously listed in the National Register
___ previously determined eligible by the National Register
___ designated a National Historic Landmark
___ recorded by Historic American Buildings Survey # _____
___ recorded by Historic American Engineering Record # _____

Primary Location of Additional Data
___ State Historic Preservation Office
___ Other State agency
___ Federal agency

___ Local government
___ University
_X_ Other
Name of repository: __Archives of Michigan_____

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10. Geographical Data

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Acreage of Property _About 725 acres

UTM References (Place additional UTM references on a continuation sheet)

	Zone	Easting	Northing		Zone	Easting	Northing
1	16	525540	5062690	3	16	527870	5063400
2	16	526320	5063850	4	16	526220	5061140

___ See continuation sheet.

Verbal Boundary Description (Describe the boundaries of the property on a continuation sheet.)

Boundary Justification (Explain why the boundaries were selected on a continuation sheet.)

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11. Form Prepared By

==========

name/title__Scott Brooks-Miller, Robert O. Christensen, John R. Halsey, _____
Maria Quinlan-Leiby
organization__Michigan Historical Center_____ date__1996_____

street & number__717 West Allegan Street_____ telephone__517/335-2719___

city or town__Lansing_____ state_MI_ zip code __48918_____

==========

Property Owner

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(Complete this item at the request of the SHPO or FPO.)
name __Mr. O. J. Scherschlight, Chief, Parks & Recreation Division
Department of Natural Resources
street & number__P. O. Box 30257_____ telephone_____

city or town__Lansing_____ state_MI__ zip code __48909___

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Paperwork Reduction Act Statement: This information is being collected for applications to the National Register of Historic Places to nominate properties for listing or determine eligibility for listing, to list properties, and to amend existing listings. Response to this request is required to obtain a benefit in accordance with the National Historic Preservation Act, as amended (16 U.S.C. 470 et seq.).
Estimated Burden Statement: Public reporting burden for this form is estimated to average 18.1 hours per response including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding this burden estimate or any aspect of this form to the Chief, Administrative

Services Division, National Park Service, P.0. Box 37127, Washington, DC 20013-7127; and the Office of Management and Budget, Paperwork Reductions Project (1024-0018), Washington, DC 20503.

Description

Fayette is a remarkably intact post Civil War charcoal iron-smelting company town site located at a remote site on the Garden Peninsula in Michigan's Upper Peninsula. This rural industrial site, established by the Jackson Iron Company in 1867 and in operation until 1890, contained industrial, administrative and commercial, and residential components. Today the townsite retains the well preserved masonry walls of the furnace complex -- with its pair of stacks and casting rooms, boiler/blower rooms, and hot blast oven ruins -- along with other elements associated with the iron-smelting operation. These include the remains of charcoal and iron kilns, traces of railroad engineering, a dolomite quarry, slag deposits, and pilings from the harbor's extensive wharfage. Sixteen buildings have survived, including the company office, machine shop, town hall (a commercial building with opera house upstairs), hotel/boarding house, and the superintendent's and ten other houses, plus the masonry walls of the company store/warehouse. The townsite also contains the sites of additional housing, livery stable and stock and hay barns, saw mill, carpenter and blacksmith shops, grain elevators, an ice house, jail, and race track and baseball diamond. Outside of the immediate townsite are a cemetery and the remains of a Catholic church and two workers' taverns. The Fayette townsite surrounds Snail Shell Harbor, formed by a small dolomite peninsula jutting from the west side of the Garden Peninsula into Lake Michigan's Big Bay de Noc. The area's nearby dolomite cliffs and extensive hardwood forests and the protected harbor all contributed to the Jackson Iron Company's decision in 1864 to establish a smelter at this site.

The nominated property includes all of Fayette Historic State Park. The park is an irregular tract located along the east shore of Lake Michigan's Big Bay de Noc on the Garden Peninsula. It has a maximum north-south distance of about 9000 feet and a maximum east-west one of nearly 8000 feet. The park contains more than two and one-half miles of curving shoreline on Big Bay de Noc itself and two indentations, Snail Shell Harbor and Sand Bay.

Inland areas of the park possess a gently rolling, often nearly level surface that has an elevation on average of about one hundred feet above lake level. The shoreline is a rich panorama of steep hillsides, vertical bluffs, and sandy and rocky beaches, focusing on Snail Shell Harbor and the peninsula which forms it. Middle Bluff, with its vertical cliffs of whitish Hendricks Dolomite rising from the lake, forms the north portion of the park's shoreline and also provides a stunning backdrop for Snail Shell Harbor when viewed from the south. The dolomite, which underlies the entire area, is part of the Niagara Escarpment. This exposed edge of an outcrop belt of sedimentary rock formed during the Silurian period, when the Great Lakes area was submerged beneath vast seas, extends in a long, curving arc around the margin of the modern Great Lakes from Rochester, New York, to Milwaukee, Wisconsin.

Middle Bluff's southern end overlooks the east shore of Snail Shell Harbor, a small natural harbor formed by a hook-shaped peninsula jutting northwest and then northward into the lake. The harbor has a maximum width of about 800 feet and not even that great a length past the peninsula's hook. A narrow terrace of low ground surrounds the harbor. Low ground also forms a shallow valley cutting across the base of the peninsula from the harbor to the lake. South and southeast of the low ground is steeply rising ground that has acquired the name Furnace Hill.

On the peninsula itself, beyond the valley, the ground slopes steeply upward from the water on all sides to nearly level ground in the center that has an elevation above lake level of about twenty-five or thirty feet. In the park's narrow southern tail south of Furnace Hill sand is more evident than the dolomite farther north and the ground levels out.

The Fayette townsite, the central historic resource within Fayette Historic State Park, surrounds Snail Shell Harbor, including the low ground and lower hillsides and the peninsula. The townsite is entered from the Garden Peninsula's primary north-south highway, which is Michigan Route M-183 as far south as the park and Delta County Route 483 southward, runs in a straight line for one and one-half miles, forming much of the state park's

southeastern boundary. This straight stretch of highway provides access to the modern, curving park entrance road at a point about three-quarters of a mile east of the townsite. At the same time it bypasses the portion of the road which, prior to 1974, passed by the townsite's southeast edge, providing the primary access. The old County Road 483 ran west and then west-southwest from the northeast end of the bypass to the edge of the townsite and then south near the Big Bay de Noc shore back to the bypass's southwest end. The old county road came down Furnace Hill just south of the charcoal kilns and furnace complex and curved to the south along the base of the hill below the current park visitor center and parking lot. The bypassed part of the road remains clearly evident within the state park.

The mile-long current park entrance road leads past the modern park contact station and headquarters building to a visitor center and adjacent parking area. The first approximately 3000 feet of the road leading from M-183 was constructed in the late 1980s along an entirely new alignment, while the next 1300 feet follow a portion of the old county road which was retained. The final short section, veering southwest from the old county road alignment, and the parking lot were constructed in 1973-74, at the same time as the visitor center. A pathway extending down the hillside from the visitor center intersects the old county road at about the point where another former road separates from it and extends westward into the townsite. This route now provides the primary visitor access to Fayette.

A campground, boat-launching area, picnic area, and beach -- in that order from north to south -- have been developed along the shore in the park's southern tail. An east-west side road south of the main part of the park connects relocated County Road 483 to a part of the old county road that remains in public use. This southern segment of the old road runs north from the merging point with the relocated highway (south of the park) through the park's southern end up to the entrance to the boat-launching area. There a gate blocks access to the next stretch of the road to the north. This next 1000-foot long stretch remains intact, forming one edge to the campground, but can only be reached from a 1973-74 road that curves inland and eventually makes a junction with the park entrance road near the visitor center parking lot. Another 1500 feet of the old county road farther north running to a point below the visitor center also remains in use as a park service drive and to provide a barrier-free access point to the townsite.

Fayette Historic State Park contains the remains of Fayette, an iron-smelting company town operated by the Jackson Iron Company from 1867 to 1890, along with the remains of other buildings and structures outside of the townsite that relate historically to the company's occupation of the area. These outlying elements include a railroad grade, church site, cemeteries, and tavern sites.

The townsite, which surrounds and faces Snail Shell Harbor, retains much of its historic street pattern of narrow, unpaved lanes. Some areas show evidence of limestone aggregate surfacing and some are surfaced in or contain deposits of slag, the unwanted by-product of the smelting process. Automobile traffic has been excluded from the site since 1973 or 74 and the pavement of the portion of the old county road immediately passing the townsite has been removed.

Roads within the townsite include, in addition to the old county road, Curve Street, Cedar Lane, and Stewart Avenue. Curve Street took a loosely curving route through the heart of the village. Angling to the west off old County 483 south of the furnace to pass between the furnace complex and the blacksmith shop, it curved south to pass between the office and barber shop and the blacksmith, machinist, and carpenter shops and between the hotel and large stock barn before turning southeast to connect again with the old county road on its way south out of town. Cedar Lane runs along the southwest and west sides of the peninsula from its junction with Curve near the hotel and loops around the peninsula's north side. Stewart Avenue, named for a Jackson Iron Company director, passes through the peninsula's center, beginning at the old County 483 below the park visitor center, crossing Curve Street east of the hotel, and ending at an apparently unnamed east-west crossroad near the peninsula's north end that connected Cedar Lane to the west with the superintendent's house overlooking the harbor to the east. Another

roadway, apparently also unnamed, ran along the harbor's west shore to the sawmill and other structures at the peninsula's tip.

The primary pedestrian access point, a pathway from the visitor center, utilizes a short portion of the old county road before turning off it onto the part of Curve Street that angles from it near the furnace and comes downhill past the furnace complex's southwest corner to the heart of the townsite near the company store and office.

The Fayette townsite is comprised of four adjacent but functionally distinct areas plus several additional nearby sites on the higher ground overlooking the harbor and town. The remains of the industrial development which was the reason for the town's existence fronts on the harbor's east edge and the east half of the south side. This industrial area centers about the remains of a furnace complex occupying much of the east part of the harbor's south side. The furnace complex contains two furnace stacks, two casting rooms, boiler and blower rooms, and blast ovens. The structures' walls are constructed of dolomite with red brick arches over door and window openings. New roof structures modeled after those which show in nineteenth-century photographs, low pyramid-roof caps for the furnace stacks, and a canopy over the brick remnants of the blast ovens were constructed in 1993 to protect the complex's walls from the weather.

The industrial zone also contains the remains of ten conical brick charcoal kilns standing in a row east-northeast of the furnace complex around the harbor's southeast corner, a rectangular-plan, wood-framed, dolomite lime kiln located a short distance northeast of the end of the charcoal kiln row, and, to its immediate north, the remains of the company's dolomite quarry in the base of Middle Bluff. Piling rows from wooden docks which almost entirely encircled Snail Shell Harbor survive, as do the foundations of a hoist house which stood between the furnaces and the dock. The waterfront terrace in front of the furnace complex, kilns, and quarry -- now an attractive lawn -- served as a storage area, and a stock house and various sheds occupied much of the space. Nothing is now visible of any of this development. Railroad grades with stone retaining walls and trestle bent abutments are visible near the furnace complex and charcoal kilns. These and other roadbed grades and traces which survive farther to the south in the park are remnants of a company-owned railroad line which connected Fayette's furnace complex and charcoal kilns with additional kilns and woodlands located to the south on the Garden Peninsula.

Nearby to the west and southwest of the furnace complex, centrally positioned in the townsite, is Fayette's administrative and commercial core. Curve Street is its heart, but is also encompasses portions of Stewart Avenue, Cedar Lane, and the old county road. This part of the townsite contains three two-story, gable-roof, clapboarded buildings -- the company office, hotel/boarding house, and the Town Hall, a building with commercial space downstairs and an auditorium up -- plus a fourth building, the machine shop, with dolomite and red brick walls. This area also contains the massive dolomite walls of the large company store/warehouse building. Foundation walls or traces of other buildings, including carpenter and blacksmith shops, a livery stable and three stock barns, and sheds, also remain visible. In addition, the townsite contains the site of other long ago demolished buildings and structures -- including a barber shop/store building, three granaries, a jail, an ice house, and an engine repair building for the company-owned railroad -- of which no above ground remains have survived. Another historic feature of this part of the townsite is deposits of slag, an unwanted byproduct of the smelting operation, used as fill to raise the level of the low ground along and behind the lakeside beach near the foot of the peninsula south of the hotel.

The third and largest zone is a residential area which occupies most of the peninsula. The three lanes running out onto the peninsula and one cross street near its end today contain eleven of the twenty-four houses which were standing here in 1907. This part of Fayette housed the Jackson Iron Company's Fayette superintendent, the company doctor, and supervisory personnel and skilled workers. The cross-gable superintendent's house, by far the largest house in the village, stands on high ground near the peninsula's north end overlooking the harbor, furnace, and central part of the townsite. In contrast to the company housing which occupied the rest of the peninsula, the peninsula's tip contained the company sawmill, of which some foundation remains are still evident, and additional docks with sheds, of which only pilings in the water now remain.

The peninsula's surviving houses and the others which have disappeared since 1907 are and were all simple wood-frame buildings. Most -- probably all -- date from the first few years of Fayette's development. All stand on substantial foundations fashioned of small slabs and chunks of dolomite. All now have clapboarded exteriors with plain cornerboards, but three of the houses retain original (but elsewhere on those houses replaced) vertical board-and-batten siding in rear facades or extensions. The roofs were clad in cedar shingles. The houses display double-hung nine-over-six or six-over-six windows set in plain board frames. Front entrances most often contain simple four-panel doors. Among all the houses, only one -- the superintendent's house -- possesses even a modicum of decorative character, with a sidelight-and pilaster-framed front entrance, fanlight device in the front gable, and a front verandah.

Among the eleven surviving houses, seven are one-and-one-half-story, side-gable dwellings with facades displaying a center entrance flanked by a single window on either side. Five of the seven possess rear leantos, and at least one other once also had such a leanto. Among the fifteen other now-destroyed houses, six (one and probably more of them with leantos) were also of the one-and-one-half side-gable center-entrance form. The second-most common form among the standing houses is the upright and wing having a two-story upright and one-and-one-half-story wing. The 1907 photo inventory illustrated only the two examples which survive today. One one-and-one-half-story side-gable duplex displaying an entrance at each end of the facade and a pair of windows between them also survives of the three illustrated in the 1907 photo series.

Only partial or entire foundations survive of the fifteen additional houses in this area illustrated in the 1907 photographs. These buildings were for the most part similar to the surviving houses, exemplifying the one-and-one-half-story side-gable and duplex types. The 1907 photos also revealed two larger duplexes -- each a two-story side-gable building with a door at each end of the facade and, between the doors, four windows each in the upper and lower stories -- one two-story front-gable building, a T-shaped building with a two-story center upright and one-story side-gable wing on either side, and several other gable-roof buildings which do not seem to fit any standard house form.

Four privy structures are also present in this residential section of Fayette. Three of them are small clapboarded gable-roof outhouses, while the fourth is a shed-roof, three door establishment with vertical board-and-batten-siding. Each door provides access to a three-hole compartment and one of the compartments includes a child's seat. In addition, an unknown number of filled privy vaults are present at the townsite.

A second residential area, occupied by Fayette's less skilled workers, once existed at the south edge of the village, on the level ground southeast of the hotel and on the hillside above it. No remains of this settlement are visible, but archaeological work has thus far located the sites of seven houses. One early photograph illustrates a row of log workers' houses standing along one side of a lane south-southeast of the hotel. The three or four most clearly visible houses are small side-gable one-and-one half-story buildings with vertically boarded gables and cedar shingle roofs. One building, more distant and thus less clearly seen, appears to have a pair of dormers on the front-facing roof slope. The 1907 Brotherton map does not show the outlines of these buildings. Instead, a label across this portion of the map notes the presence of old log houses of little value.

During the Jackson Iron Company era, the higher ground overlooking the townsite contained additional houses and the local district school. Foundations of two houses and the school building remain visible in the general area of the park visitor center, headquarters, and contact station. A large company hay barn stood on the high ground overlooking the quarry and lime kiln. Its foundations also remain visible. In addition, the outline of a more-or-less oval race track dating from the Jackson Iron period survives on the level ground south of the visitor center and headquarters building. No evidence of a baseball diamond which occupied space within the townsite end of the track remains visible.

One panorama photograph from the later 1870s that shows the furnace in the foreground and a sweep from the sawmill on the right to building 5 and beyond on the left reveals that the superintendent's house, including the trim and fencing surrounding its yard, was then painted a gleaming light color, presumably white. The now destroyed T-plan dwelling (building 5) nearby on Stewart, seemingly the second-best house in town and presumably originally the home of another key official, was painted in a three-color scheme, with a light-colored body, much darker trim, and very light -- perhaps white -- sash. The other houses visible in the view -- buildings 4, 13, and 14 -- plus the sawmill appear to be painted a dark color with very light -- white-looking -- window frames and sash. Another view from the Jackson Iron era that shows the stock barn, sheds, and carpenter, machine, and blacksmith shops on the right and Middle Bluff in the center also seems to show dark-color paint on the wooden buildings (the contrast between the stock barn's exterior color and the color of the inside of the doors, which are presumably bare wood, is clear). The color scheme for the carpenter and blacksmith shops appears the same in a 1907 photo of approximately the same view. In the Jackson Iron-era view, the barber shop, company office, and wooden store building seem to have a slightly lighter body color, but this cannot be stated with any degree of certainty.

Two photos of the townsite -- both taken from Middle Bluff -- that appear to date from the 1890s seem to show the houses and other key wooden buildings including the hotel, office, and town hall with bodies painted in lighter hues. Presumably this change took place before Jackson Iron closed the furnaces. The 1907 photo series also seems to show many of the wooden buildings retaining remnants of light-colored paint schemes that may have varied some from building to building. Often the window sash appear lighter in color than the body color -- perhaps white -- and sometimes the rest of the trim seems to be darker. Several of the houses as well as other wooden buildings, however, retained darker color schemes.

The Fayette townsite today has a bucolic setting. The central elements of the site, including the furnace complex and central administrative/commercial area, are set in a landscape of regularly mowed lawns that also display a scattering of trees that have mostly grown up since the state park was established. Small lawn areas about the houses and many foundations on the peninsula are also mowed. In much of the peninsula and rest of the townsite, however, nature has been allowed to take over.

In contrast to today's neat-and-clean appearance, more than one hundred years after the last smelting activity ended, the industrial part of the townsite was an untidy, smoky, grungy industrial landscape of furnaces, casting houses, charcoal and lime kilns, railroad sidings, wharves and storage yards, and quarry. Old photographs show that the area comprising the furnace and charcoal kiln complexes and docks in front of them was devoid of trees -- indeed, there is no suggestion even of grass in this industrial landscape. A view northward along Curve Street between the carpenter, blacksmith, and machine shops and the barber shop, company office, and store also reveals treeless, barren ground. Some remnants of woods survived well back from the furnace complex on Furnace Hill and the portion of Middle Bluff visible in the Curve Street photo shows a fringe of trees above the cliffs.

In contrast to the townsite's industrial and administrative/commercial areas, the nineteenth-century photographs indicate that much of the peninsula remained wooded, with only the area between the harbor and Stewart Avenue toward the outer end of the peninsula apparently cleared. The forest on the peninsula's Big Bay de Noc side may have been preserved for the practical purpose of providing a windbreak against cold winter winds off the open water, to provide as attractive a setting as possible in this wilderness area for the company's supervisory and skilled personnel, or for both purposes.

Nineteenth- and early twentieth-century photographs reveal virtually no evidence of purposeful landscaping. No foundation plantings or ornamental shrubs or trees are apparent. The abundance of cedars along the peninsula's west side reportedly suggested the Cedar Lane name, but the 1907 photos of buildings on the peninsula show a great number of birches as well. Birches stood along the Cedar Lane roadside along the peninsula's west side. The birches are still evident, but seem less plentiful today.

A photograph dating probably from the later 1870s shows that the lot associated with the superintendent's house was surrounded by a fence which, like the superintendent's house itself, was painted white. The fence was a horizontal board one displaying four strips of boards with a flat board cap. The lowest strip of boards, set at ground level, was also the broadest from bottom to top, and each strip above was narrower than the one below it, the second from the top being only about half as wide as the bottom one. By 1907 this fence was replaced with a wooden picket fence with pointed-head flat pickets. The current fence is modeled after the nineteenth-century one.

The same 1870s photo illustrates one other fenced-in building, building 13, located on Stewart not far from the superintendent's house. The fence shown, a board one similar to that which fronted the superintendent's house in its early days, also appears in the 1907 Brotherton photo of building 13 but can no longer be seen in a post card view postmarked 1911. This and the superintendent's house are the only buildings illustrated in the 1907 Brotherton photo series as having fences.

In addition to the townsite itself, the Fayette Historic State Park contains other historic resources which relate directly to the Jackson Iron Company's iron-smelting operation. In the park's northeast area, approximately one mile northeast from the townsite itself, are the foundation and other remains of two saloons or taverns which served Fayette workers. The two sites stand approximately 1000 feet distant from one another along the old county road. To the south of the townsite about 2000 feet are located the foundations of St. Peter the Fisherman Catholic Church, an 1870s Catholic church building which burned in 1973. Beside it stand the remnants of an outdoor shrine. Southward another one-half mile near the lake is the one-acre St. Peter the Fisherman Cemetery. The church served many Fayette workers, and the cemetery contains the remains of some of them.

The construction of portions of the park access road system along new alignments in the 1970s and 80s and the development of park facilities such as camp- and picnic grounds have altered the character of the historic area contained with the Fayette Historic State Park. However, most of these developments have avoided significant historic resources associated with the Jackson Iron Company era. Ownership by the state park system for the past almost forty years has overall proved highly beneficial in protecting the site from further deterioration and from vandalism and new development which surely would have resulted by now in the loss of much of the historic elements which remained in place in 1959.

Fayette contains the following historic resources. For buildings, 1907 Map followed by a number refers to the number assigned the building in the 1907 R. A. Brotherton Map of Fayette Mich. References to the 1974 Map followed by a number refer to numbers assigned in the Survey Key Map (Plate 8) in the 1974 National Heritage Corp. report. A third map, referred to as the 1974 Report Appendix D Map, indicates the location of one additional site, while a contemporary Fayette Historic State Park map locates several outlying sites. The building numbers assigned in the 1907 map were maintained in the 1974 report's maps.

General Features

1. Roads

a. Old County Road 483. By 1872 stages were running between Fayette and Escanaba. This suggests that the road down the Garden Peninsula which later became Delta County Road 483 was already established. The principal change in Fayette's historic road system has been the re-routing around the townsite of the primary north-south highway down the Garden Peninsula. The 1907 Brotherton map shows this route entering Fayette from the northeast near the bluff edge south of the quarry, kilns, and furnace. South of the furnace the road turned more southwestward and ran along the lower edge of the hillside southeast of the village before turning more southerly along the Big Bay de Noc shore.

This road became part of Delta County Route 483 and was given its partially surviving bituminous surface during the 1952-54 period. In the 1960s after the state of Michigan's acquisition of the site, the highway was reconstructed bypassing the townsite along the former alignment of County Route O-8. The eastern half-mile of the bypassed road, as far west as the side road to the Hinks Cemetery, remains a public highway, its badly deteriorated surface presumably dating from the 1952-54 period. Beyond the cemetery turn, the former route of 483 remains clearly visible as a cut through the woods serving electric power lines. A bit less than one half mile further southwest, the current Fayette Historic State Park access road comes in from the east. It follows the old alignment for about 1300 feet and then curves slightly to the south of the alignment to end at the visitor parking lot and visitor center. At the curve, the old road continues as a gravel trace more or less straight in a southwesterly direction down the hill until it merges briefly with the main pedestrian pathway into the Fayette townsite. Southwest of this point approximately 500 feet of the old road have been all but obliterated, with only grass now visible. Between this point and the connection with the modern park road leading to the campground 1500 feet to the south, a crushed-stone-surface stretch of the old road remains in place as a park service road. The southern end of the bypassed section, from the lakeshore campground south to the junction with today's County Route 183, continues in public use. Its pavement may also date from 1952-54.

b. Curve Street. This road passes through the heart of the village, veering off of the old county road south of the furnace to pass between it and the blacksmith shop site before turning south to pass between the store, office, and barber shop and the blacksmith, machine, and carpenter shop. Crossing Stewart Avenue east of the hotel, it turns southeast to rejoin the old county road near the stock barn. The part of Curve Street east of the company store to the junction with the old county road, along with the county road itself to the east over Furnace Hill, was commonly called Furnace Hill Road at the time the road was closed to vehicular traffic in the early 1970s.

Below the gravel and dolomite surface, much of the road as far northeast, at least, as the schoolhouse site, is underlain by slag deposits. Near the large stock barn's southwest side, the current grassy surface is underlain by a slag roadbed.

c. Cedar Lane. This road runs northwest from Curve Street along the southwest and west side of the peninsula, and curves around the peninsula's north end, connecting with the road running along the harbor's west side to the sawmill site and point.

d. Stewart Avenue. Running from the old county road northwest and then north through the center of the peninsula, this road intersects at its north end an east-west road connecting Cedar Lane with the superintendent's house.

e. East-west road past superintendent's house. An unnamed road runs east from Cedar Lane across the peninsula, serving as the north end of Stewart Avenue. As a less clearly defined passageway it continues east between the superintendent's house and building 3 (1907 Brotherton map) and on down the slope to the sawmill site. From its south side, directly in front of building 3, another passageway -- clearly evident in at least one nineteenth-century photograph but long abandoned -- veers off at an angle down the slope in front of buildings 3 and 4 to the road along the harbor's west side.

f. Road along west side of harbor. An unnamed road from the vicinity of the company store runs along the harbor's west side to the sawmill site and tip of the peninsula.

g. Roads on and atop Furnace Hill. The 1907 Brotherton map, the earliest for the Fayette area, does not show all existing roads even within the townsite proper and all but ignores the area on and atop Furnace Hill. The locations of the entrance road into the race track and any other roads which may have existed there are currently unknown.

2. Railroad

Segments of railroad grades, some with masonry retaining walls, footings, and repetitive patterns of slight depressions in the ground surface remain visible as remnants of the Jackson Iron Company-owned railroad line which connected the charcoal kilns and furnace complex at Fayette with wood sources and charcoal kilns located southward on the Garden Peninsula. A main line entered Fayette from the south along a more-or-less north-south alignment that ran near Sand Bay and along the base of Furnace Hill. At the base of the hill south of the furnace complex's west end, the line terminated in several branches.

One branch ran just east of the large barn and carpenter, machine, and blacksmith shops to the west side of the west casting house. From at least the vicinity of the barn north, this siding ran on an embankment rising gradually higher above grade to a point about in line with the store/warehouse's south facade. From that point north, a wooden trestle supported the tracks. The embankment -- faced with dolomite retaining walls along both sides and the north end -- survives. The wooden trestle has entirely disappeared but dolomite foundations for trestle bents remain in place down as far as the west side of the west casting house.

A second branch parted from the one described above in the vicinity of the large barn and, turning gradually to the east-northeast, ran parallel with the retaining wall south of the charcoal kiln sites, ending somewhere in the vicinity of the east end of the charcoal kiln row. This siding's southwest end stands partially on an embankment lined on the downhill side and the northeast end with dolomite retaining walls. The more easterly portion, south of the east part of the furnace complex and the kilns, stood on a wooden trestle. No remnants of the trestle are visible, but a pattern of alternating rises and dips extending across the now grassy ground may indicate the former location of the siding and trestle.

The same pre-1881 Elliott photo which shows the second branch on its wooden trestle illustrates a third branch -- also on a wooden trestle -- paralleling the second a short distance to its south. No above-ground remains of this line are evident.

A shorter pair of sidings paralleled the west casting house siding on its east side in the space near the furnace complex between that siding and the ones running south of the charcoal kiln row. These extended to a small, gable-roof vertical board-and-batten-clad locomotive repair building (1974 Map #132). No remains of the repair shop or siding(s) are visible.

At the south end of the portion of the main line located within Fayette State Park, an additional short stretch of the line is visible. Beginning at a point about 650 feet north of the north line of Section 9 on the old County Route 483 alignment, near the boat launch road, a slightly elevated embankment angles slightly west of the Route 483 alignment and runs southward in a straight line toward the modern picnic area north of St. Peter's Cemetery. Cedars and yellow birch closely flank the segment's dirt surface, which remains clear because of ongoing use by DNR vehicles.

3. Slag and Charcoal Deposits

Waste slag and charcoal from the furnace and kilns were used as fill for low spots and as a road surfacing material. The extent of deposits of waste slag and charcoal is currently unknown. The undulating, grassed-over ground behind the beach in the area south of the hotel (1974 Map #200) contains deposits of slag waste and the beach itself also displays evidence of slag dumping in the form of pebbles resulting from wave action on the slag.

Townsite

4. Quarry Site (1974 Map #201). Fayette's quarry provided dolomite to be used as a flux in the smelting operation as well as a building material and source of lime for mortar for the Jackson Iron Company's building operations. Cut into the southern edge of Middle Bluff east of Snail Shell Harbor, the quarry has a nearly vertical cliff face a maximum of approximately forty feet in height and extends about two hundred feet in a north-south direction and fifty feet east and west. The original outline of the bluff is visible as the outer edge of the quarried area's more or less level stone floor. Vertical drill holes are evident in the lower portion of the cliff face and several bits and holes are present in the flat slab quarry floor. Woods are taking over around the site's edges.

5. Fayette Fish Company Shed Site (1974 Report Appendix D3 Map #127). Nothing remains visible at the site of this gable-roof one-story wood-frame shed with its slanting-roof tower at one corner and shiplap siding. The building dated from after the Jackson Iron Company era and was demolished after the establishment of the state park.

6. Lime Kiln (1974 Map #125). A square-plan, rectangular lime kiln, with dolomite walls and timber framing at the corners and forming horizontal bands, was restored or reconstructed on the original site in the 1960s. A photo of the rear of the kiln taken prior to the 1960s work shows that the stonework remained largely intact but the timbers had mostly rotted away. An old photo shows a wooden trestle with a level deck extending from the top of the stack back to the hillside to the southeast. The trestle no longer exists, but apparent remnants of a lower-level embankment running in the same direction are present.

7. Charcoal Kiln Sites (1974 Map #115-124). The sites of eleven conical brick charcoal kilns stand in a row beginning just to the east of the east casting house and extending east-northeastward directly below the retaining wall. Portions of the lower walls of two conical brick charcoal kilns plus the foundations of seven others are visible. The walls of one kiln were reconstructed c. 1965. How much original material was retained is unknown. An eleventh kiln, the one located at the west end of the row nearest the casting house, was demolished when the casting house was enlarged, but subsurface remains may still exist. The Jackson Iron Company originally built eight rectangular, fourteen by forty-eight-foot brick kilns with arched roofs on the same site. Three additional kilns, perhaps the first of the conical ones but this is not known for certain, were constructed in 1870. Sometime between 1870 and the furnace's final shutdown in 1890 conical kilns replaced all the rectangular ones, but it is possible that some subsurface remains of these structures could still exist. No evidence of wooden platforms over both the rectangular and conical kilns which facilitated loading from above is visible.

8. Retaining Walls (1974 Map #207). A two-tiered system of dolomite retaining walls directly behind (south of) the full length of the charcoal kilns supports the rising ground of Furnace Hill and served as the base for wooden kiln loading platforms. The lower wall is approximately twice the height of the upper and the entire structure gradually decreases in height toward the northeast and merges into the hillside at the northeast end of the charcoal kiln row.

9. Furnace Complex (1974 Map #114). The furnace complex, facing north near the center of the harbor's south side, is comprised of standing structures, walls and ruins, and the sites of no longer standing components. These include an 1867 furnace stack and casting house, 1867 blower and boiler rooms, 1869-70 furnace stack and casting house, 1869-70 blower and boiler rooms, 1881 hot blast oven ruins, and the sites of stock houses, materials sheds, a crusher, and a hoist house. The surviving structures have walls constructed of locally quarried dolomite except for the quoins at the east corners of the 1867 casting house, which are of a yellowish sandstone, and the caps for the round, pointed, and segmental-arch doorway openings and furnace hearths as well as the corners of the furnace stacks (below the 1881 extensions) and horizontal banding in the stacks, which are all of red brick. None of the furnace's equipment except for small remnants of piping has survived.

The complex is laid out on an east-west axis, with the square-plan 1867 and 1869-70 furnace stacks side by side in the center flanked by a gable-roof casting house to the east and west, the 1867 structures on the east and 1869-70

ones on the west. Behind (south), atop a dolomite retaining wall whose upper edge stands at about the height of the casting houses' upper dolomite courses, stand the 1867 and 1869-70 blower and boiler rooms and the remains of the hot blast ovens. The dolomite foundation of the hoist house stands a short distance north of the furnace stacks, in line with the space between the stacks. The sites of the stock house and sheds occupy portions of the level ground along the complex's harbor frontage.

New roofs over the casting rooms, boiler, and blower rooms were installed in 1993. Hip roofs were placed over the heads of the furnaces to stabilize deterioration. Additionally a shed roof was built over the ruins of the hot blast ovens to prevent further decay.

a. East Furnace Stack. As it currently exists, following enlargement in 1881, the 1867 stack is square in plan, thirty-by-thirty feet at ground level but tapering inward as it rises, and rises to a height of fifty-four feet. A large opening to the hearth with a pointed-arch head constructed of red brick pierces each face of the dolomite structure. Some timbers of the structure's wood framing remain, but red brick at the corners and in horizontal bands about ten feet apart across the central portion of the stack's height replaced most of the timbering during the years the furnace was in operation. The upper fourteen feet added in 1881 have no timber framing or brickwork cornering or banding. The stack's interior is lined with fire brick. Stabilization of the furnace exterior was carried out in 1979 and some additional work done in 1993.

b. West Furnace Stack. Built in 1869-70, the west stack has the same construction and dimensions as the 1867 east one. Like the east stack, it was originally forty feet in height and raised to fifty-four feet in 1881. In the 1869-70 stack, the tops of the hearth openings come to more pronounced Gothic points than those of the 1867 one. The stack's north facade displays an 1870 date plaque centered in the facade directly above the hearth opening. Stabilization work on the 1869-70 stack was carried out in 1978.

c. East Casting House. Constructed in 1867 and lengthened by about twenty-six feet in 1881, the east casting house is rectangular in form with ground dimensions of about eighty-five feet in length, east and west, by forty-five north and south. The freestanding structure has dolomite walls approximately fifteen feet in height on the east, north, and south. The west end facing the east furnace is unenclosed. Arches over three broad doorway openings and segmental-arch caps over two window openings are constructed of red brick and quoins at the structure's northeast and northwest corners are of yellowish-orange sandstone. The casting house's walls were stabilized and a gabled roof structure with gabled monitor atop the ridge constructed in 1993. The roof uses a timber truss system with tie rods and is clad in standing seam metal roofing. The east gable is finished in wooden clapboarding with plain board eaves boards. The reconstructed roof is based on the evidence provided by historic photographs.

d. West Casting House. Built in 1869-70 and lengthened by about sixteen feet in 1881, the west casting house has ground dimensions of about ninety feet in length, east and west, by forty-five, north and south. Like the east casting house, it has walls on all but the side facing the west furnace constructed of dolomite with red brick door and window arches. The corner quoining is of limestone rather than the sandstone used in the east house. The west casting house's walls were also stabilized and the structure given a roof in 1993.

e. Boiler and Blower Rooms. The complex of four one-story boiler and blower rooms stand side by side atop the retaining wall directly behind the furnaces. The building which houses these rooms plus space north of the boiler rooms containing piping has an overall east-west length of about eighty feet and a maximum depth along its west flank -- where the 1869-70 boiler room is located -- of about forty-five feet. The building's north wall stands directly on the retaining wall, but its south facade does not form a straight line. The south front of the 1867 boiler room, located next east of the 1869-70 one, stands about six feet north of that of the 1869-70 one to its west, and the facade of the 1867 and 1869-70 blower rooms, at the east end, is set back another approximately thirteen feet. The 1867 and 1869-70 blower rooms have ground dimensions, taken together, of about thirty-five feet in length, east and west, by twenty-six, north and south. The east boiler room, built in 1867, has ground dimensions of about

twenty feet in width, east-west, and forty feet, north-south, while the west one, dating from 1869-70, is approximately twenty-five feet in width and forty-five in depth. At the north ends of both boiler rooms, vertical shafts extend down to the furnaces' and casting rooms' ground level. These spaces presumably containing piping. The structure, as repaired, probably, after an 1883 fire, has dolomite walls, with brick arches over openings, that supported a common one-slope roof which slanted downward from the north facade above the retaining wall toward the south. The walls were stabilized and the roof, which apparently disappeared by the turn of the century, was reconstructed in 1993.

f. Hot Blast Oven Ruins. Only portions of the lower walls and foundations of the two hot blast ovens, constructed in 1881, survive. The narrow, approximately thirty-foot long rectangular brick structures stand side by side just west of the west wall of the boiler/blower room structure. An open, gabled canopy with wooden post supports, constructed in 1993, shelters the ruins.

g. Hoist House Site. Low foundation walls standing slightly north of the furnaces and on axis with a line drawn equidistant from the stacks' bases survive of the hoist house and hoist which raised materials to the top of the furnaces. Originally built in 1867 and repaired or reconstructed after fires in 1876 and 1883, the structure was constructed of sheet iron over a timber frame.

h. Stock House Site. Nothing is visible of the stock house built in 1883 or of earlier ones which stood on approximately the same site directly to the north of the furnaces between the hoist house and docks. The stock houses were large covered and enclosed wooden sheds which housed the ore shipped in by barge and ore-crushing machinery.

i. Furnace/Kiln Area Shed Sites. No remains are visible of any of the various sheds which covered large portions of the dock and adjacent shore near the furnace complex and east and northeastward toward the quarry. An open-sided wooden shed occupied much of the space between the stock house and east casting house and the edge of the dock. This may have sheltered iron pigs. A pre-1881 photo shows what appears to be another flat-roofed shed to the west of the west casting house. This may have sheltered raw materials. The pre-1881 photo also shows an uncovered wooden framework, whose purpose is unclear, fronting on the dock just east of the dock front's turn to the northeast in front of the quarry. Wood and perhaps other materials were also stored on the dock and adjacent ground east of the furnace complex. A small one-story gable-roof building or shed, clad in vertical board-and-batten siding, also stood southeast of the point where the dock turns northeast, just in front of the charcoal kiln row. The purpose of this building is unknown. No remains of this building are visible.

10. Dock (1974 Map #205). Rows of pilings survive of the continuous wood-piling-supported wood-plank wharf which extended around the harbor, from the quarry site on the northeast to the northwest corner of the harbor near the end of the peninsula. Much if not all of the structure was built in 1867. The surviving piling rows as well as old photos show that the dock angled out from the shore in front of the quarry's northeast end. Its front edge extended along the harbor's northeast shore in a straight line. It then turned and, as it existed at the time the company's operations ended, extended in a straight line west-southwest along the south side of the harbor to a point beyond the west end of the furnace complex, where it made a short turn south to a point closer to the original shore near the company store/warehouse building. The dock front then continued in a west-southwest direction, angled northwest across the harbor's southwest corner, and then ran north-northeast along the harbor's west side to the south side of the point. No visible remnants survive of derricks which a pre-1881 photo shows were located near the west end of the section of dock in front of the furnace complex.

11. Granary Site (1974 Map #134). Nothing remains visible at the site of this dockside granary, the only one of the three Fayette granaries, presumably, from which grains were exported from the area. The granary was a tower-like square-plan wood frame structure four stories in height with a gable roof. A small one-story slanting-roof shed stood to the granary's immediate north. Its function is unknown.

12. Tip of Peninsula Dock and Sheds (1974 Map #136, 205). A second dock structure projected southward from the peninsula's tip and also extended north along the tip's east shore, its edge angling back to shore where the shore began to turn more westerly. The dock structure projecting southward from the tip of the peninsula supported a cluster of wood-frame sheds. Photos that appear to date from the 1890s show two side-by-side gable-roof sheds extending across the dock in an east-west direction. These may have served as cargo sheds since one of the photos shows a ship docked alongside them. The southern shed stood back perhaps seventy-five feet from the dock's south end. Slightly later photos, including one from the 1907 Brotherton series, illustrate these two sheds, but also show a shed-roof ell attached to the south side of the more southerly shed at its west end and also an additional low gable-roof shed located farther south. In a post card view postmarked 1912, the southernmost shed and ell addition to the center shed have already disappeared. The center shed (southerly one in the 1890s photos) was by then a two-part structure with its waterside (eastern) half now lowered almost to water level while the western half stands at the former level atop the dock. In a slightly later photo, probably dating from the 1915-20 era because of the presence of an Escanaba & Garden Bay excursion boat, the more northerly of the sheds that appear in the 1890s photos remains in place, but everything to its south has disappeared. A still later photo shows the same shed still standing with yet another low side-gable shed to its south. Fishing gear and boats around the south end of the pier which show in some of the post-1900 photos suggests that these sheds may have served local fishing interests. Today no remains are visible on the point itself and nothing but dock pilings are visible in the water.

13. Sawmill Site (1974 Map #135). Partial remains of the foundation's west side wall are visible of the Jackson Iron Company's sawmill, which was built into the hillside directly east of the superintendent's house. This structure was built in 1871-72 after an earlier one burned. The south-facing sawmill was a long rectangular timber-frame building clad in vertical boarding and with a gable roof and a leanto along the north part of the west side. Because of the sloping ground, the building was two stories in height along the east and north sides but only one story in height above the dolomite foundation wall on the west side.

14. Granary Sites (1974 Map #130). Nothing remains visible at this site where two granaries stood side by side. The granaries were two-story square-plan wood-frame buildings with gable roofs. The walls of the more southwesterly building appear to have been clad in horizontal boarding with vertically boarded gables, the more northeasterly in vertical boarding. The one photo which shows the two structures most clearly is taken from the north-northwest and shows what appears to be the rear of the structures. The southeast facades, which are probably the fronts, face the lower slope of Furnace Hill, and a ramp appears to cross the gap from the hillside to the northeast granary at the second-story level.

15. Jail Site (1974 Map #131). No remains are evident of the small, square-plan jail building, which was standing in 1879. The wood-frame building had an almost two-story high front on the northwest side and a roof that slanted steeply downward from it to a one-story height on the southeast. The building's walls were clad in vertical boarding.

16. Blacksmith Shop Site (1974 Map #103). The foundation survives of the no longer standing blacksmith shop. The building was originally constructed c. 1867, destroyed by fire, and rebuilt in 1871. A 1907 Brotherton photo shows the 1871 building to have been a west-northwest-facing one-and-one-half-story gable-roof building with a leanto along one side and vertical board-and-batten siding.

17. Machine Shop (1974 Map #104). Built c. 1867-69 with dolomite walls with brickwork corners, gables, and segmental arches above the door and window openings, the one-story gable-roof machine shop is the only masonry building at Fayette with its original wooden roof truss system intact. The windows retain metal shutters. The roof and a collapsed portion of the south wall were repaired in 1995.

18. Carpenter Shop Site (1974 Map #105). Foundations survive of the no longer standing carpenter shop, which was built c. 1870. A 1907 Brotherton photo shows it to have been a gable-roof one and one-half-story building with

walls finished in vertical board and batten. Its west-northwest-facing front facade aligned with the fronts of the machine and blacksmith shops.

19. Shed Sites (1974 Map #106-107). No surface remains are visible of two side-by-side structures labelled as sheds in the 1907 R. A. Brotherton map. An early photo shows the more westerly shed to have been a one-story gable-roof structure whose west-northwest-facing side was a series of open bays. The sheds were presumably used for the storage of lumber or other materials.

20. Stock Barn Site (1974 Map #113). The forty-by-one hundred thirty-foot foundation of the largest of the company's stock barns, built in 1867, survives. Old photos indicate that the barn was a gable-roof wood frame building with vertical board-and-batten siding. Archaeological survey work at this site was carried out in 1991.

21. Company Store/Warehouse Ruins (1974 Map #102). The massive masonry walls of the company store and warehouse building which burned in 1922 survive largely intact. The building was constructed in two sections. The warehouse, two stories in height on its southwest-facing facade and three on the northeast (harbor) side because of the sloping ground, was built in 1870 alongside an older wooden store building which later burned. The store portion of the building dates from 1886. One story in height on its southwest-facing front and two stories at the opposite end, it directly adjoins the warehouse on the southeast. Its northeast (harbor-facing) facade projects slightly beyond the warehouse's rear wall plane. The two portions of the building have matching, level rooflines on their front and rear facades. The warehouse roof was apparently almost level, while the store's sloped gently downward from the building's common central wall to the southeast facade. The building's walls are constructed of dolomite, but the segmental-arch door and window openings in the warehouse and the store's splayed door and window openings, front entrance opening's quoining, and segmental-arch covering the harborside basement-level entrance are of red brick. In addition, the inside of the walls in the store portion are lined in brick, which retained patches of plastering until the brick was cleaned and sealed in recent times. The dolomite walls were cleaned, tuckpointed, and capped in 1993. The walls of the store part of the building entirely surround what appear to be the foundations of the previous company store building, a gable-roof two-story wood-frame building constructed c. 1867.

22. Scales Site (1974 Map #204). Foundations only survive of this materials'weighing structure located near the north side wall of the company office. The structure once had a wooden platform.

23. Company Office (1974 Map #108). Built c. 1870-72, the two-story front-gable twenty-five by forty-foot wood frame building has clapboarded walls, plain corner and frieze boards, and raking cornices without returns. The east-southeast-facing front has a transomed entrance at each end of the facade and a pair of windows between them in the first story. The more northerly door and window were removed in the early twentieth century and replaced with a wide doorway when the building served for a time as an auto-repair garage; this change was reversed in the early 1960s. The building's south-southwest side facade is windowless, while the north-northeast one has windows in only the first story. An enclosed staircase to the second story along the south-southwest facade near the building's rear corner that shows in a 1907 Brotherton photo no longer exists.

The building's first story housed the superintendent's office and space for the paymaster and clerks. A passage extends through the building against the south-southwest wall. The superintendent's office, to which the north front door provides direct access from outside, is located at the front of the building. It had its own wash basin with hot and cold running water. The central section of the first floor housed the paymaster and company clerk. At the back is a lobby area. Workers lined up from here back down the corridor to receive their pay. Adjacent to the lobby, but opening into the paymaster's office, was the company vault, a masonry safe with vaulted ceiling, constructed into the structure at the west-northwest corner. The steel safe door still remains.

The second floor was accessible only by the now removed enclosed exterior stairway on the south-southwest side of the building. The offices of the bookkeeper and timekeepers and reportedly the meeting place of the Fayette Odd Fellows lodge occupied the second-floor space, which is now simply one large room.

The building has been stabilized and undergone partial restoration with interpretive exhibits depicting the superintendent's, timekeeper, and payroll offices.

24. Barber Shop/Store Site (1974 Map #109). No surface remains are visible of this one-and-one-half-story gable-roof building with vertical board-and-batten walls. The building was constructed c. 1870-72.

25. Fayette House/Shelton House

a. Hotel (1974 Map #100). The largest wood frame building at Fayette, this hotel/boardinghouse is a U-shaped two-and-one-half-story building comprised of the front, northeast-facing side-gable-roof main block and two wings which extend to the rear at right angles to the front block. The front section and west wing stand on brick foundations, the east wing on a dolomite one. The exterior is clapboarded, with plain corner and frieze boards and raking cornices without returns. A verandah, supported by simple chamfered-edge posts, extends across most of the facade sheltering the hotel's two front entrances and three gabled dormers pierce the roof's front slope.

The physical evolution of the hotel building has not been fully documented. We know that the original hotel/boardinghouse, then known as the Fayette House, was constructed during Fayette's earliest years and certainly before 1871; that an enlargement was being made during September 1871; and that the building was largely if not entirely rebuilt in 1881-82. The physical evidence of the southeast rear wing's dolomite foundation and vertical board-and-batten exterior cladding (the battens were later removed and the boarding covered with clapboarding) -- construction characteristic of the earliest period of Fayette's development in the late 1860s but unlike that of the rest of the hotel building -- suggests that this part of today's building is the oldest part of the hotel/boardinghouse. But we cannot say for certain whether it was part of the original building or the 1871 addition. The physical evidence suggests that the hotel's front section and northwest rear wing were built at the same time. This new construction, which took place in 1881-82, gave the building its present appearance. In the wake of the new look, the hotel received a new name, the Shelton House.

The hotel's double-door front entry leads to the main foyer, where the staircase to the second floor is located. From the foyer, doorways provide access to the front parlor and dining room on the northwest and the hotel lobby on the southeast. A second doorway to the southeast of the double-door front entrance leads directly into the hotel lobby. Other spaces on the first floor include a saloon in the southeast wing and, in the northwest wing behind the dining room, a kitchen, pantry, and cook's quarters. A second utility stairwell to the second story is located off the kitchen. Access from the kitchen is provided to a basement located under the west wing.

Guest rooms are located on the second floor and range from small seven-by-eight-foot rooms in the southeast wing to a suite with parlor and bed chamber reaching twenty-six by fifteen feet. A washroom, complete with hot and cold running water, occupies space above the lower end of the staircase. A two-story privy was accessible by a catwalk from the northwest wing, while residents of the southeast wing had to descend an exterior staircase at the southwest end of the hall to reach the privy.

For long-term boarders unable to meet the price of a single room the hotel also had an open dormitory in its third or attic story. Three front dormers and a single window in each gable end provided natural light. The price of boarding included meals in the hotel dining room.

b. Hotel Privy Site (1974 Map #100A). Site of two-story gable-roof privy built in 1882. The structure's location southwest of the hotel's southwest wing was ascertained during archaeological investigations in 1991. An elevated walkway from the privy's upstairs ran to a second-story entrance in the back of the southwest wing.

c. Site of possible cold cellar or other ancillary structure (1974 Map #100B). A readily noticeable depression in the ground is located to the southeast of the southeast wing.

d. Hotel Livery Stable Site (1974 Map #111). No remains are visible of this clapboarded side-gable-roof stable built in 1882. The building had a shed-roof ell along part of its rear (west) facade.

26. Dock (?) Site (Fayette Historic State Park Map). Nubs of wooden pilings, worn off where they rise out of the lake bottom, form the outline of a rectangle about twenty by ten feet in ground dimensions standing in shallow water near shore off slag beach in the exposed waters of Big Bay de Noc. The remains of a few interior pilings are also present. The date of this feature and its historic function are unknown.

27. Barn Site (1974 Map #110). No remains are visible of this gable-roof, frame building with vertical board-and-batten siding.

28. Barn Site (1974 Map #112). This barn was also a gable-roof wood-frame building with vertical board-and-batten siding. No remains are visible.

29. Town Hall (1974 Map #101). Newspaper notices make it appear that this building was constructed c. 1881, but it is possible that it is the product of a substantial renovation of an older town hall building constructed c. 1869-71. The town hall, containing commercial space in its street level and an auditorium or opera house for public entertainments upstairs, is a gable-roof two-story wood frame building that faces southwest. The building stands on ground which slopes downward toward the harbor, so that the dolomite foundation walls have a large exposure at the back of the building and space is provided there for an above-ground basement. The building's rear wall is not parallel with the front, but slants at an angle, for reasons which remain unknown.

The town hall's first story provided space for a variety of small commercial and professional operations including a doctor's office, pharmacy, shoe repair, and granary. A butcher shop occupied the triangular space at the rear (northeast) end and possessed a meat cooler complete with overhead pulley system to an ice house nearby to obtain ice to keep perishables cool.

The building's second story served as the focal point for Fayette's social life. Performers, speakers, farewell parties, and masquerade balls along with other pleasant social events took place in this opera house space. A small stage occupies the northeast end of the hall and behind it is a dressing room in which performers visiting Fayette often inscribed on the walls their names, dates of their visits, and the names of the productions in which they performed. The hall has been restored to its 1880s appearance.

30. Ice House Site (1974 Map #133). No remains are visible of the one-story, side-gable-roof ice house, which was standing in 1878. The structure's walls were clad in vertical wood boarding and it appears from early photographs that the broad side facing the harbor contained a door near the center of each half.

31. Building Site (Fayette Historic State Park Map). An early photo, taken before the second furnace stack was built, shows a one-story gable-roof building sited with its north front standing approximately in line with the north front of the company store and west of that building near the location of the town hall building. This could be the ice house, but the building's long axis appears to parallel the store's north facade while the ice house's long axis stood at a pronounced angle to the storefront facade -- suggesting that it is a different building. The identity of the building is unknown. However, the building's location accords with the location given in Langille's Snail Shell

Harbor for the home and store of H. G. D. Squires, the settler from whom the Jackson Iron Company purchased the townsite property. No remains are visible.

32. House Site (1907 Map #15). An overgrown site with no apparent remains marks the location of a no longer standing modest clapboarded one-story gable-roof house with a shed-roof wing off one gable end. The 1907 Brotherton photo of this house shows a small portion of what appears to be a gable-roof vertical-board barn or other outbuilding near the house. If the photo was taken from the street side, the outbuilding would have stood northwest of the house.

33. House Site (1907 Map #16-17). Foundation of a no longer standing two-story side-gable duplex residence. The clapboarded building had a door at each end of the facade and two rows of four windows between.

34. House (1907 Map #18). One-and-one-half-story side-gable house, built c. 1868-70. Originally sided in board and batten, the house was reclad in clapboard over the boarding c. 1872-78. The house has two main rooms with a smaller room on the first floor and two sleeping rooms on the second floor.

35. Community. Privy (1974 Map #18A). Shed-roof outhouse with vertical board-and-batten siding. There are three exterior doors, each providing access to a three-holer section of the building. One section includes a child seat. Whether this building dates from the Jackson Iron Company period is not known.

36. House Site (1907 Map #19). Foundation of a no longer standing two-story side-gable clapboarded house. The three-bay facade had a center entrance downstairs and two windows up. A staircase along the northwest side facade led to a second-story entrance on that side of the building.

37. House Site (1907 Map #20-21). Foundation of a no longer standing one-and-one-half-story side-gable duplex, probably with a rear leanto such as the duplex that stood next door (1907 Map #22-23) clearly possessed. The clapboarded house, built c. 1870-72, had a door-window-window-door facade fenestration pattern.

38. House Site (1907 Map #22-23). Foundation of a no longer standing one-and-one-half-story side-gable duplex with a rear leanto. Built c. 1870-72, the clapboarded house had a door-window-window-door facade fenestration pattern.

39. House Site (1907 Map #24). Only slight traces of the foundation of this no longer standing one-and-one-half-story side-gable house are visible. The clapboarded building had a three-bay center-entrance facade.

40. House (1907 Map #25). One-and-one-half-story side-gable building constructed c. 1868-72. The exterior was originally clad in vertical board and batten, but in the c. 1872-78 period a leanto was added to the back and clapboarding added over the boarding. The house survives today with the leanto removed and the board and batten of the original rear wall once again exposed. There are three rooms on the first floor and two sleeping rooms on the second.

41. House (1907 Map #26). Upright-and-wing house with two-story upright and one-story wing. The clapboarded building has two front entrances, one in the wing next to the upright, the other in the side wall of the upright adjacent to the wing's front facade. The first story contains three large rooms, including a parlor, kitchen, and, perhaps, bedroom or large pantry. The second story contains two bedrooms.

42. House (1907 Map #27). Upright-and-wing house identical in form and finish to 1907 Map #26 next door to the south.

43. House Site (1907 Map #28). Only faint traces exist of the stone foundation of this no longer standing one-and-one-half-story side-gable house with its rear leanto. The clapboarded house had a three-bay center-entrance facade fenestration pattern.

44. House Site (1907 Map #29). Only faint traces exist of the stone foundation of this no longer standing one-and-one-half-story side-gable house. The clapboarded building with its three-bay center-entrance facade fenestration had a large shed-roof wing extending outward from the rear part of its south side.

45. House (1907 Map #30-31). One-and-one-half-story side-gable duplex with rear leanto and door-window-window-door fenestration pattern. The exterior walls are clad in clapboarding except for the leanto's rear facade, which retains vertical board-and-batten siding like that with which the rest of the walls were originally covered. The house was constructed c. 1870; the date of the siding change is not known. Each half of the house contained a parlor, kitchen, and upstairs sleeping room. At an unknown date the building was converted into a single-family residence.

46. House Site (1907 Map #32). The Brotherton 1907 map shows this building with the notation house burnt. No photo has been located. Archaeological survey work done in the summer of 1995 uncovered traces of foundations and other evidence.

47. House Site (1907 Map #6). Only the foundation survives of this house, which a 1907 Brotherton photo indicates was a one-and-one-half-story side-gable clapboarded house with a clapboarded leanto at one end.

48. House (1907 Map #7). Clapboarded one-and-one-half-story side-gable leanto house with three-bay center-entrance facade.

49. House Site (1907 Map #8). Only the foundation walls remain. Unlike any other house at Fayette, this one has an inner basement wall, apparently indicating the excavation of the basement at some later time. A 1907 Brotherton photo shows that this was a one-and-one-half-story side-gable clapboarded house with a small one-story side-gable wing to the southeast and another small, perhaps shed-roof wing on the northeast.

50. House (1907 Map #9). One-and-one-half-story side-gable clapboarded leanto house with a gabled rear ell containing a kitchen and pantry.

51. House Site (1907 Map #10). Foundation of a no-longer existing two-story front-gable building with one-story shed-roof wing to one side. The building was clad in vertical board and batten siding and had a small gabled entryway in the center of the gabled part of the facade.

52. House Site (1907 Map #11-12). Foundation of a no-longer existing duplex residence. The two-story side-gable building had board-and-batten siding. A door at each end of the facade provided access.

53. House Site (1907 Map #13). Foundation of a no longer standing clapboarded house. A 1907 Brotherton photo shows that the house had a one-and-one-half-story gable-roof part with ridge of the roof parallel with the road but the entrance below one gable and a one-story gable-roof ell extending back at a right angle to the section fronting on the street. In the 1907 Brotherton photo a board fence with four horizontal rails fronts the property. The only other fence illustrated in the 1907 photo series is a picket fence at the superintendent's house.

54. House Site (1907 Map #14). Foundation of a no longer standing one-and-one-half-story side-gable clapboarded leanto house.

55. Doctor's House (1907 Map #2). The home of the company doctor, this south-facing one-and-one-half-story clapboarded side-gable house with a rear leanto is unique in the townsite for standing on an above-ground brick

basement. Staircases in the center of the three-bay front and back facades provide direct access to the frame upstairs area, while at-grade entries pierce the brick basement level on the north and west facades. The staircases, shown as in ruinous condition in the 1907 Brotherton photo, have been rebuilt. The first floor contains three rooms with an interior staircase to the second floor. The kitchen, parlor, and another small room occupy the upstairs and two sleeping rooms are located in the third, half-story level. A privy was located north of the structure; its site has not been excavated.

56. Cemetery (1974 Map #206). Small burial plot located near the doctor's house that reportedly contains the grave of Fayette superintendent Harry Pinchin. A 1907 Brotherton photograph shows a small square enclosure with wooden picket fence. Today the fence is gone and the location is not apparent. The 1974 report text indicates that the grave is located southwest of the house, but the number on the map is positioned west-northwest.

57. House Site (1907 Map #5). Foundations survive of this building, which stood near the peninsula's middle street but faced east across an open lawn toward the harbor. The 1907 Brotherton photo shows the building to have had a two-story front-gable center section -- with the entrance at one end -- flanked on either side by a slightly recessed one-story side-gable wing. A small slanting-roof, vertical-board-clad shed projected from the end of the south wing. This building is sometimes described as a boarding house, but its design and location in the cleared ground overlooking the harbor and town suggest that it was more likely built as the home of one of the company's key officials.

58. Superintendent's House

a. Superintendent's House (1907 Map #1). The most substantial dwelling in Fayette, this two-story, front-gable with its shallow cross-gable wings stands on high ground overlooking the entire townsite. Built c.1867-68, the clapboarded house faces south on a one-time drive connecting the central street with the harbor road near the sawmill. Like all of Fayette's wood frame buildings, the house is simply detailed, with plain corner and frieze boards and raking cornices without returns. Early photos show a one-story verandah across the front and east side back to the gabled side wing. The 1907 Brotherton photo, the only one clearly illustrating the porch detailing, shows simply detailed and flimsy-looking construction using plain boards for posts and lintels and a sloping, crimped-metal roof of concave form. The present porch, constructed in 1986, is intended to duplicate the appearance the verandah had in 1907. A shed-roof kitchen wing extends to the north. Downstairs rooms include a parlor, dining room, library, kitchen, maids room, pantry and storeroom. There are five bedrooms on the second floor. The house has a cellar beneath its southern portion.

b. Landscaping.

Fencing. Nineteenth-century photographs show a wooden fence across the south and east side of the lot with horizontal planking in four rows much like the present fence constructed in the 1980s. The 1907 Brotherton photo shows a wooden picket fence. Today huge lilacs stand at the house's two front corners. The 1907 photo does not appear to show any plantings in the same locations.

Driveway. Irregular flat slabs of whitish dolomite or limestone form a curving entrance for a drive which ran from the center street into the superintendent's house lot and to the west of the house itself. The age of this feature is unknown, but is probably post-1890.

Sidewalks. Walks constructed of the same type of irregular flat slabs used in the drive -- but originally of a more granular sandstone-appearing material -- extend from outside the fence up to the front porch and from the west end of the front porch toward the driveway. The original sidewalks were replaced with new material of similar appearance in 1988.

c. Privy. A clapboarded, gable-roof privy, finished with plastered walls inside, stands northwest of the house. An archaeological excavation of a privy site near this building was carried out during the summer of 1995.

d.Barn/carriage house sites. Old photos show two gable-roof wooden outbuildings located directly behind the house. Foundation remains of one of these buildings are visible.

59. House (1907 Map #3). Located immediately south of the superintendent's house and facing east, this one-and-one-half-story leanto house commanded a panoramic view of the harbor and furnace complex. The clapboarded house has lost a one-story side-gable wing which -- a 1907 Brotherton photo indicates -- projected from the surviving building's south end with its front facade recessed well back from the front wall plane. The existing three-bay center-entrance portion has a parlor, bedroom, and kitchen on the first floor and two sleeping rooms on the second.

A small gable-roof frame privy stands behind the house. Another high gable-roof outbuilding stood behind the house, but no remains are visible. Several apple trees of uncertain age also survive on the grounds behind the house.

60. House (1907 Map #4). Located immediately south of 1907 Map #3, this one-and-one-half-story leanto house has a three-bay center-entrance facade. The house is clapboarded except for an extension of the rear leanto, which is clad in vertical board and batten.

61. Workers' Housing Sites (1974 Map #50). Housing for workers is known to have been located on the low ground south and southeast of the stock barn and along the hillside above the townsite. An early photograph shows one row of small one-and-one-half-story side-gable log dwellings at the townsite's south edge. These are described on the 1907 Brotherton survey map as old log houses of little value. Archaeological survey work in this area performed in 1987 and 1995 identified depressions marking the sites of approximately seven of these foundation-less log houses. Many additional sites probably remain to be identified since as many as forty of these houses existed in Fayette's early days.

62. Water System Remains. Some elements of piping have been discovered from the water line and drain system established by Jackson Iron that provided water from the harbor to primary buildings such as the hotel and company office and apparently returned waste to the same source. An 1881 lease agreement for the hotel refers to the company providing water from its furnace tank or pumps.

Furnace Hill

63. Hay Barn Site (1974 Map #128). Standing atop the bluff above the quarry, foundations of the hay barn, a very long gable-roof frame building with vertical-boarded walls, remain visible. The barn stored hay for livestock.

64. House Site (1907 Map #86). The foundation of a no longer standing two-story front-gable clapboarded house is located in the angle between the road to the visitor center parking lot and the entrance from that road into the park headquarters parking lot.

65. Schoolhouse Site (1974 Map #151). Foundations of this small district school building, constructed by 1872, survive within a small crescent shaped traffic island near the contemporary park Motor Vehicle Permit Contact Station.

66. House Site (1907 Map #63). The foundation of a no longer standing one-story clapboarded gable-roof house is located on the side of Furnace Hill approximately half-way between the visitor center and the northeast end of the visitor center parking lot.

67. Race Track and Ball Diamond Site (1974 Map #150). The slightly bermed outlines of an earth race track -- in approximately the shape of an elongated oval -- extend in a north-northwest-to-south-southeast direction on generally level ground south of the current headquarters building. Its straight-line length from end to end is approximately 1400 feet. The north-northwest end of the track is known to have contained within it a baseball diamond, but no evidence of the diamond remains visible. The race track and baseball diamond date from the Jackson Iron Company period and the track reportedly was used for auto races as recently as the 1940s. No entrance road or pathway to the site is evident.

Northeast Area

68. Hinks Tavern Site (Fayette Historic State Park Map). The foundation walls and an open basement survive at this site, located on the south side of old County Route 483 about one mile northeast of the townsite. The site was occupied by one or more buildings reportedly containing the Hinks residence, a boarding house, and the saloon or tavern. The overgrown site displays ornamentals, including lilacs, lilies, and myrtle.

69. Neveau(x) Tavern Site (Fayette Historic State Park Map). One dolomite foundation, located in open ground at the junction of old County Route 483 with Michigan Route M-183, survives. The 1974 National Heritage Corporation report noted that plans for park road development threatened part of the site, but none was apparently disturbed or destroyed.

South Area

70. St. Peter the Fisherman Catholic Church Site (Fayette Historic State Park Map). Located slightly less than one-half mile south of the townsite across from the contemporary state park campground, the site contains the church's foundations, the remains of an outdoor shrine, and the sites of a rectory and cemetery. They are set on grounds which slope steeply down toward the old county road which passes the site to the west running in a north-northwest-to-south-southeast direction. The church stood facing south. A remnant of the lawn which surrounded the c. 1879 church before it burned in 1973 has been maintained to the west and southwest of the foundation and old maples survive along the south edge of the grounds.

a. St. Peter the Fisherman Church Site. A tall flight of concrete stairs extends up to a high dolomite foundation surfaced in concrete. The church was a simple gable-roof clapboarded building with a projecting square-plan tower capped by a cross-tipped spire. A gable-roof sanctuary projected to the rear. The church had a round-arch entrance through the tower, paired arched windows above, and single row of round-arch windows in the side walls. In its later years the tall spire was replaced by a simple hip roof and the paired windows above the door with a cross-shaped window of glass block.

b. Grotto. To the immediate west of the church's north end stand the remains of the Our Lady of Fatima Grotto. The shrine was comprised of an altar faced in light-colored stone and containing a figure of Our Lady standing before a curving, vertical backdrop which, rising from the ends toward the center, is constructed of large stones of various colors with a concrete coping. The altar and figure of Mary have been removed, but the backdrop remains intact except for a missing stone at the top. A row of cedars behind (north of) the shrine has grown large enough that branches are beginning to obscure the backdrop's edges.

c. Rectory Site. A simple one-and-one-half-story gable-roof clapboarded rectory built c. 1876 stood northwest of the church. It was sold and moved five miles south c. 1930-33. Nothing is now visible at the original site.

d. Barn Site. A gable-roof vertical-board barn or shed is shown standing directly north of the church in the photograph of the church in Rezek's History of the Diocese of Sault Ste. Marie and Marquette.

e. Cemetery. Margaret Coppess Elliott's Records of Old St. Peters Catholic Cemetery, Fayette, Michigan, reports that picket enclosures containing at least four graves existed on the northeast side of the church many years ago and lists five identified burials at the church, including one on the church's east side for which a stone marker apparently survived in 1977.

71. St. Peter the Fisherman Catholic Cemetery (Fayette Historic State Park Map). This nearly rectangular, approximately one-acre burial ground stands on hilly, ungraded ground near the Sand Bay shore about one mile south of the townsite. Established by 1877, the date of the earliest known burial, St. Peter contains about 200 graves. The grounds contain some large white pines and red oaks and smaller hemlock and cedar. Several wooden picket and braided wire plot enclosures are present. The monuments face north, presumably toward the church. The majority of the stone monuments are small ones of grayish marble. Many wooden cross markers are also present. Most if not all the wooden cross markers and all the wood picket enclosures are reproductions of deteriorated originals made by Douglas Smith, the Fayette State Park carpenter, in 1976-77 and installed in the spring of 1977. A large wood cross which stands in the center of the grounds was also probably constructed by Smith.

Archaeological Sites

Archaeological site number 20DE19 covers the entire area of the townsite, the harbor, and the bluffs on the east side of the harbor. The townsite contains a remarkable range of archaeological remains: industrial, domestic, maritime, and prehistoric. Prehistoric occupations appear to be concentrated in the area of the Doctor's and Superintendent's Houses near the northern end of the site extending down the hillside to the water's edge and as far south as House #5 (Halsey 1986, 1987, 1988a, 1988b, 1989; Halsey and Mead 1986; Stone 1985). There are at least two periods of occupation: Late Archaic and Middle Woodland. The type of occupation appears to be summer camping with a variety of animals exploited. Excavation to this time has been principally test-pitting with no extensive areas opened up. Artifacts are found up to a depth of 2½ feet near the Superintendent's House. No apparent features such as hearths or trash pits have been identified at this time. Fragmentary human remains discovered in the builder's trench of the Superintendent's House suggest the high probability of burials. Prehistoric cultural remains also occurred in the area of the workers' log houses (Clark 1986). The cliffs around Fayette and further south at Burnt Bluff have produced a variety of ritual and burial sites (Barondess 1994; Cleland and Peske 1968; Eger 1981; Halsey 1995; Janzen 1968; Jones 1968; Lugthart 1968).

Industrial remains abound at the site. The furnace and casting houses, the charcoal kilns, rail lines, and docks have had little or no formal research. Archaeological monitoring during the reconstruction of the furnace complex revealed a complex depositional and construction history.

Archaeologists have explored the domestic and commercial life of Fayette through limited excavations around the Superintendent's House (Halsey 1986, 1987) and the Doctor's House and more extensive excavations of workers' log houses (Martin 1987), the hotel's large masonry-lined privy (Pletka 1993), and privies associated with the Superintendent's House, supervisors' houses, and workers' log houses (Martin 1995).

There has been no professional assessment of the underwater archaeological potential of the site, but in the 1960s divers from the Michigan United Conservation Clubs were permitted to recover large quantities of artifacts from the harbor bottom. Unfortunately, inadequate provision was made for study, storage, and conservation of the artifacts and many disappeared during the years they were stored at Fayette. What survives from this collection is in the state archaeological collections at the Michigan Historical Center. The remains of at least one shipwreck lie off the dock in front of the furnace complex.

20DE1: SW¼, SW¼ Section 4, T38N, R19W

This site is known only from surface collections done in 1956 and 1963. All known collections from this site are at the University of Michigan Museum of Anthropology. The surface extent and depth of the site are unknown. There are Late Woodland ceramics present at this site (Halsey 1995, Martin 1985:269).

20DE7: SE¼, NW¼, NW¼ Section 9, T38N, R19W

The Port Bar site is across the road from the Port Bar and on the southern edge of St. Peter's Cemetery. It lies in a sheltered dune area several hundred feet back from the current shoreline. This site was collected from in 1965 by the University of Michigan. All known collections from this site are at the University of Michigan Museum of Anthropology. The surface extent and depth are unknown. Artifacts suggest a Late Woodland occupation ca. A.D. 800 (Fitting 1968b:117; Halsey 1995; Luedtke 1976:490; Martin 1985:270-271).

20DE471: NW¼, SW¼, SW¼ Section 34, T39N, R19W

The Hink's Tavern site consists of scattered limestone foundations belonging to the tavern of "Pig Iron" Hinks. No recording, excavation, or stabilization has been done at this site (National Heritage Corporation 1974:Structure 304).

20DE472: Center SW¼ Section 34, T39N, R19W

The Neveau Tavern site consists of scattered limestone foundations belonging to the Neveau Tavern. No recording, excavation, or stabilization has been done at this site (National Heritage Corporation 1974:Structure 305).

20DE473: NW¼, NW¼, SW¼ Section 4, T38N, R19W

This site consists of the foundation remains of St. Peter's Church (burned in 1973) and the Lady of Fatima Grotto (National Heritage Corporation 1974:Structure 306).

Potential for Additional Sites:

There has been no comprehensive survey of the park to locate and map additional sites or structural features. The greatest potential may be for prehistoric occupations within the townsite and in the caves and clefts of the bluffs and any old dune areas back from the current shore. Since the townsite is considered as one large "site", structures and other features that show up within it are more appropriately viewed as components rather than as new sites. However viewed, the townsite must be considered archaeologically sensitive from one end to the other.

Non-contributing Properties

The following are all state park improvements constructed c. 1960 to the late 1980s. The locations of all are shown in the contemporary Fayette Historic State Park map.

72. Park roadway system
73. Park entrance sign
74. Park contact station
75. Ranger's residence, located near contact station
76. Park headquarters
77. House, located near headquarters
78. Park visitor center

79. Docks
80. Campground
81. Boat launch
82. Picnic area

Significance

Fayette is the most intact post Civil War-era charcoal iron-smelting company town in the United States. This rural industrial site, established by the Jackson Iron Company in 1867 and in operation until 1890, has remained largely undisturbed over the past century because of its remote location and protection since 1959 as part of the Michigan state park system. The site has never been systemmatically and thoroughly surveyed for archaeological resources, but the artifactual material that has been found through professional studies of portions of the townsite and research in previous decades suggests that the potential for the townsite to contain important additional prehistoric and historic-era archaeological resources is very high. Fayette's importance is that it is an entire industry-based community whose surviving resources reflect not only the industrial operation which was the town's economic base but also the lifeways of its inhabitants.

Introduction

The development of Michigan's iron industry paralleled the nation's industrial growth. For nearly a half-century, from the 1850s to the 1890s, the state led the nation in iron-ore production. During the Civil War and the years following, industrialization, mechanization, urban growth, and railroad expansion opened major markets for Michigan iron ore.

The Jackson Iron Company, which built and operated the blast furnaces at Fayette, descended from the Jackson Mining Company, the first company to exploit Michigan's iron riches. Formed in 1845 to mine copper, Jackson's interest quickly changed to iron after a number of stockholders were shown a "mountain of iron ore" near the Carp River in Marquette County. Mining began the next year. The Jackson Mining Company was also the first enterprise to process iron ore in the Upper Peninsula at its water-powered forge on the Carp River.

Transportation difficulties plagued both the mine and forge, and they were a major factor in the failure of the forge. The rapids at Sault Ste. Marie necessitated expensive and time-consuming transfers of cargo traveling to and from Lake Superior ports, and the task of hauling anything over the crude track from the mine area to the mouth of the Carp River at present-day Marquette was equally daunting.

The Jackson Iron Company (the name was changed in 1849), to eliminate the costly hauling of bulk ore, built a water-powered forge on the Carp River a short distance from the company's mines. It reasoned that shipping just the finished product would be more cost-effective than shipping ore. Unfortunately, the cost of operating a bloomery forge, with its high consumption of fuel, made the cost of smelting iron greater than the resulting iron's market value. As a result, the Carp River Forge, the first in the Upper Peninsula, was abandoned.

By the late 1850s transportation had become far more efficient and less costly. The locks at Sault Ste. Marie, which made it possible to ship cargos directly between the Upper Peninsula and Chicago, Detroit, Cleveland, and other ports on lakes Michigan, Huron, and Erie, opened in1855, and two years later the Iron Mountain Railroad was completed between Negaunee, the location of the Jackson Iron Company's mine, and Marquette, the nearest Lake Superior port. The improvements in transportation made it possible to ship Upper Peninsula ore to smelters elsewhere. It also made it feasible to ship iron smelted in Upper Peninsula furnaces to market. As a result, charcoal iron furnaces proliferated in the Upper Peninsula.

The demand for iron ore increased dramatically during the Civil War, and iron ore shipments from Lake Superior ports doubled during the war years. The war also increased the demand for charcoal pig iron. The seven furnaces in the Upper Peninsula could profitably market all the pig iron they could produce. As the war continued, construction of new, larger capacity blast furnaces increased.

During this period of demand new ways were sought to ship ore in lieu of the water route across Lake Superior. To this end the Peninsula Railroad was established and a rail line between Negaunee and Escanaba, one hundred miles to the southeast on Lake Michigan, completed in 1864. The railroad made it possible for the Jackson Iron Company to ship its ore directly by rail to the ore dock in Escanaba and then by boat to smelters in Illinois, Ohio, and Pennsylvania. This would eliminate the expense of shipping ore on Lake Superior and avoid that lake's shorter shipping season and more treacherous weather.

Establishment of Fayette

Already a major producer of iron ore, the Jackson Iron Company sought to exploit the market demand for charcoal iron by establishing its own iron ore-smelting operation. In 1864 Fayette Brown, Jackson Iron's Upper Peninsula general agent, proposed opening a smelter near Escanaba. A site near Escanaba would permit cost-effective shipping of ore to the smelter by rail and boat and of finished iron pigs to the firm's steel mill customers in Illinois, Ohio, and Pennsylvania. In 1864 Brown, with the authorization of the company's directors, hired a team of scouts to begin the search for an acceptable site for the proposed operation.

The search began with the Garden Peninsula because it was close to Escanaba while virtually without development. Because of its location the Jackson Iron Company was able to purchase land covered with hardwoods for $2.98 per acre rather than the $10-15 dollars per acre for property in the vicinity of Marquette. During the next two years, the company's agents, not making public their employer, purchased parcels of land. By the winter of 1866-67 Jackson Iron owned more than 10,000 acres on the peninsula and in February, 1867, Fayette Brown himself led a party to inspect the site and decide upon a location for the smelter. He reported to the board of directors his conclusion that Snail Shell Harbor was the best location. It was centrally located in the company's Garden Peninsula lands. The harbor offered protection from storms as well as deep water close to shore, and its south side would make an ideal site for the furnace and kilns. The site provided all the necessary components to establish a smelter complex. On the east shoreline rose dolomite cliffs, which could be quarried to provide flux, stone for walls and foundations, and plaster. The company's property contained vast quantities of hardwoods to be converted into charcoal for the smelting process. The deep-water harbor would facilitate water transportation to and from the site.

On its 10,000-acre Garden Peninsula tract the Jackson Iron Company developed a large-scale iron-smelting operation. The central focus of the operation was a townsite around Snail Shell Harbor, named Fayette in honor of Fayette Brown. The company's complex at Snail Shell Harbor was to contain, because of its isolated location, not just a smelter, but an entire company town that would house all of the operations related to iron-smelting plus the large work force (and their families) and the other community accoutrements that would be needed.

Construction of the furnace complex and company town began quickly after final consent by the Jackson Iron board in the early months of 1867. Construction of the furnace complex and the docks which virtually surrounded the harbor was placed under the direction of Joseph H. Harris, a Vermonter who had a reputation for getting the job done even in the roughest of conditions.

The first stack neared completion by early summer, with all but the crucible and lining completed. Equipment, such as the blowing engine and "Blake Crusher," arrived and were put in place during the late summer and early autumn. The stack and casting house were constructed of dolomite with brick arches and a metal fireproof roof. A work force of nearly two hundred under Harris' supervision worked feverishly in the attempt to begin operations by the

end of the 1867 navigation season. Only the delay of the completion of the hoist house in the late fall of 1867 prevented an earlier firing of the furnace. The first iron was smelted on Christmas day.

A second stack, originally planned for 1868/69, was built fourteen feet to the south of the 1867 stack and placed in operation in 1870. The two stacks were virtually identical except that the 1870 one's arched opening facing the harbor was more strongly pointed than the earlier. Dolomite casting houses faced the hearth openings to the east and west of the pair of stacks. Mechanical rooms for blowers and steam engines and, eventually, hot blast ovens were constructed on the terrace behind on the south side of the stacks.

Immediately in front of the stacks a stock house was constructed to shelter charcoal, iron ore, and dolomite. Also housed in the stock house was the "Blake Stone Breaker," a mechanical crusher powered by a forty-horsepower "Roots patent steam engine" which pulverized iron ore and dolomite into fist-size pieces. Immediately in front of and centered on the stacks was the hoist house.

A row of rectangular brick charcoal kilns and a lime kiln were built just east of the furnace complex and a dolomite quarry opened at the base of Middle Bluff to provide flux for the smelting operation as well as stone for building walls and foundations and lime for mortar. Additional charcoal kilns were soon built at other locations within the company's Garden Peninsula territory. By the early 1880s the company had as many as sixty-eight charcoal kilns. In 1870 the company constructed a six-mile long railroad line to connect its woodlands and kilns south of Fayette with the smelter.

Jackson Iron built a blacksmith shop, company store, and stock barn and probably other buildings that housed company operations during 1867. By 1869, if not before, carpenter and machine shop, sawmill, company office, and hotel/boarding house buildings were in use. A town hall building was constructed in the 1869-71 period, barber shop/store building built

probably in the 1870-72 period, and the original sawmill replaced with a new one in 1872 after the first one burned. In later years additional buildings were constructed: a small jail c. 1876-79; enlargement of the hotel, which made it essentially a new building, in 1881-82; hay barn in 1882; new stone company store in 1886 when the old frame one burned; and livery stable in 1887. The community also eventually had an ice house and three granaries.

It was reported that by the time the furnace went into operation, there was housing for nearly 300 people. Eventually about 500 people lived in the settlement. The company built some housing for supervisory personnel and skilled workers in 1867 and by 1869 reportedly had nine frame houses. Additional houses -- five during 1872 -- were constructed over the next few years. By 1883 the company was receiving rent for nineteen houses or living units (four of the houses were duplexes). It located its housing for supervisory and skilled workers on the peninsula, separate from the industrial part of the town and upwind from its smoke and odors.

The townsite also contained an undetermined number of houses for unskilled workers. By late 1867 there were reportedly twenty or thirty small log houses (shanties) for common laborers such as charcoal kiln colliers and teamsters. By 1869 the number is said to have grown to forty. These are thought to have been primitive buildings, some with dirt floors, that frequently housed two families each. They were apparently located below Furnace Hill at the south end of the townsite, on low ground and downwind of the stock barns.

Iron-Making at Fayette

Fayette existed to make iron, and no attempt was ever made to hide that fact. Today, the stacks themselves and the walls of the furnace complex stand in contrast to the green hillside. In the nineteenth century, however, they were surrounded by a welter of support structures and stockpiles of materials. The harbor area that is now so peaceful is where most of the men in the village worked. Three ingredients were needed to produce pig iron: crude iron ore, fuel to fire the furnace and melt the ore, and a flux to remove impurities. Ore was the only raw material not

available locally. It was transported by rail from Negaunee to Escanaba and shipped to Fayette on scows pushed by tugs. The dolomite used for flux was quarried from the bluff along the eastern edge of Fayette's harbor and hauled in wagons to the foot of the stacks. Charcoal -- the fuel used in Fayette's blast furnaces -- was produced at the furnace location and at sites scattered over the company's Garden Peninsula woodlands.

Raw materials were assembled in the stock house at the base of the furnace stacks. There the ore and dolomite were broken up by steam-powered crushers. A steam hoist raised measured amounts of charcoal, ore, and dolomite to the top of the furnace where they were charged (dumped) into the stack. Inside the furnace the charcoal -- encouraged by blasts of heated air blown into the stack by large steam engines -- began to burn. As the ore sank to the bottom it gradually melted. Its impurities combined chemically with the dolomite flux and floated to the surface of the molten iron. Separate tapholes were used to drain slag and iron from the furnace hearth. The molten iron was guided into channels in the sand floor of the casting house and allowed to cool and harden. Finally the iron pigs were separated and hauled to the dock to await shipment.

Like other charcoal-fired blast furnaces constructed after the Civil War, those at Fayette were designed to take advantage of recent technological improvements and were more efficient and productive than older charcoal furnaces. They were taller and wider than earlier stacks, and their blowers were powered by steam rather than water. The furnaces were "hot blast" instead of cold, meaning that the air blown into them was preheated. Fayette's managers worked to make their facility even more efficient, and they shared information with their colleagues at similar furnaces through informal contacts and the United States Association of Charcoal Iron Workers.

Over the years, alterations were made to Fayette's furnaces. Some of the changes, like relining the furnaces, were incorporated into routine maintenance tasks. Others were the result of mechanical breakdowns or fire. Only once -- in 1881 -- were the stacks shut down for an overhaul. At that time, new, larger hot blast ovens (the brick remains can still be seen) were constructed on the ground. The previous ovens had been located on top of the furnaces. The stacks were increased in height and widened at the base. The tops were fitted with bell-and-hopper covers to allow charging to occur with minimal heat loss. Covering the tops also allowed the use of charcoal made from softwoods. Softwood charcoal produced dangerous sparks and its use had been avoided.

Charcoal was the ingredient whose supply caused the most difficulty for the furnace operation. Charcoal is produced by the controlled, partial burning of wood. In Fayette's early days this was often accomplished in dirt-covered mounds. Eventually, a sufficient number of brick kilns -- each with a capacity of thirty-five cords of wood -- was constructed to provide a steady fuel supply. One set of kilns was located near the furnaces at Snail Shell Harbor, the others at various locations in the Jackson Iron Company's woodlands. Charcoal workers, known as colliers, had to keep a constant watch on their kilns during the eight-day charring process. If the fire went out or the wood burned too rapidly it would produce ashes instead of charcoal. As a result, each kiln location became a small settlement connected to Fayette by water transport or the company's narrow-gauge railroad.

The delicacy of the charring process was one of the reasons that the fuel supply was of constant concern to furnace management. On one occasion, gases generated by charring caused a kiln to explode. Another time, the colliers lost control of the charring fire at the furnace kilns. Five kilns were damaged and four others were destroyed, as well as a supply of wood and part of the railroad trestle behind the kilns. Charcoal also was responsible for Fayette's worst disaster. On May 12, 1883, charcoal -- still hot from the kilns -- was placed in a storage shed where it started a fire that nearly destroyed the entire furnace complex.

As the years passed and the reserves of uncut woodland dwindled, the company attempted to stretch its fuel supply. Initially, only hardwoods were cut for charcoal. But after the furnace modifications of 1881 softwoods were also used. But as the wood supply became more distant from the furnace complex transportation costs began to figure significantly in the cost of fuel.

Over the course of twenty-four years of operation, Fayette's blast furnaces produced a total of 229,288 tons of iron, placing Fayette second in production among Upper Peninsula furnaces in the nineteenth century. From 1870 to 1874, and again in 1884, the Jackson Iron Company's Fayette furnace made more pig iron than any other Upper Peninsula operation. The use of modern blast furnace design and machinery led to this excellent record.

To place Fayette in the proper perspective, however, one must look at the American iron industry as a whole. In the late nineteenth century, charcoal iron was a specialty product with a limited market. The smelting industry was dominated by large blast furnaces in cities like Pittsburgh, Cleveland, and Chicago. These furnaces burned mineral coal or coke for fuel and their production far outstripped that of any charcoal furnace. In 1867 charcoal iron accounted for about twenty-five percent of the nation's iron production. By 1890 that figure had dropped to seven percent.

During Fayette's early years charcoal iron commanded premium prices because it was of better quality than iron smelted with coal or coke. Railroad expansion created a strong demand for all types of iron after the Civil War, and the Jackson Iron Company was able to sell as much as it could produce. Most of the iron produced at Fayette was converted to steel, which ultimately became railroad rails and railroad car wheels. But by the mid-1880s improvements in the quality of coke iron and steel allowed those products to begin taking over markets that had previously belonged to charcoal iron. Customers were no longer willing to pay higher prices for charcoal iron if they could get as good a product using the cheaper, more efficiently produced coke iron.

This decline in the charcoal iron market, coupled with a series of internal problems faced by the Jackson Iron Company, forecast a bleak future for both the workers and residents of Fayette. The company's fuel supply on the Garden Peninsula had been depleted. The aging furnace machinery was too inefficient to keep production costs competitive, and it was becoming harder to find new machinery suitable to produce the low phosphorous iron that had always been Fayette's primary product. By the close of the 1880s Fayette was one of only six charcoal-iron furnaces still operating in the Upper Peninsula. Production leveled off to about 10,000 tons a year, far below capacity and the record levels of the 1870s. The decision to terminate iron smelting came during the winter of 1890. The company removed the salvagable machinery and equipment in 1891 and abandoned Fayette, leaving the site to the elements and those residents who chose to remain.

Fayette's Social History

Fayette was established to produce pig iron and that fact affected every facet of life in the village. Whether buying meat and produce at the butcher shop, voting for the township's school supervisor, or dreaming of owning a farm, the choices available were influenced to some degree by the Jackson Iron Company. The choices that people actually made, however, also reflected the cultural backgrounds and personalities they brought with them to Fayette.

At least one member of every family in the village worked for the iron company, so it is not surprising that Fayette's social structure paralleled the organization of its workforce. The wage-earner's position in the company determined where a family lived and who their closest neighbors were. But Fayette was not a large industrial center where workers and bosses rarely saw each other away from work; Fayette's population never exceeded 500 and people knew each other's names.

The superintendent represented company authority in the social realm just as he did at work. He often held local political office as well. He and his family lived in the large, comfortable White House across the harbor (and upwind) from the furnace stacks. Although born in Canada rather than the U. S., John B. Kitchen was typical in many other respects of the men who oversaw the village. Kitchen came to Fayette in 1867 as a young bookkeeper, and was named superintendent in 1873. Over the next ten years he not only ran the business, but served as township supervisor and local school inspector, attended Fourth of July celebrations and masquerade balls with his wife Alison, and kept the fastest racehorse in the village. When he resigned his position to become a banker in Chicago,

Kitchen and his family were escorted by the Fayette Cornet Band to a farewell reception at the Town Hall. There the townspeople presented the Kitchens with a gold-trimmed ebony walking stick and a silver water pitcher.

The company doctor, clerks, hotel proprietor, and supervisory furnace personnel ranked next on Fayette's social ladder. They and their families were likely to be either U. S.-born or English-speaking Canadians (including several Kitchen relatives). They often took the lead in organizing patriotic celebrations for the 4th of July and presenting local entertainments, as when George Harris and Dan Hannigan, both foremen at the furnace, arranged a Centennial Ball in 1876. Skilled workers also shared the relatively high social status of this group and participated in social events in a similar way. August and Aggie Talbot, two of carpenter George Talbot's children, were among those with speaking parts in the Christmas Eve entertainment of 1886.

The majority of Fayette's workers were not foremen, managers, or skilled workers, however, but semiskilled and unskilled laborers. Only about one-fifth of these men were natives of the United States. Among immigrant workers, French-Canadians and Belgians predominated, and French may have been heard as much as English in the barns and at the charcoal kilns. Irishmen, Germans, Scandinavians, and Bohemians made up the remainder of the working class population. Fayette's working class included families like that of George and Octavia Duquette, who immigrated together from Canada in 1873. George worked as a teamster, while Octavia kept house and cared for their growing family. In 1880, Belgian John Louis was a laborer at the furnaces. He and his American-born wife Mary had one young child, and Mary was also kept busy by the needs of four boarders, one of whom was her husband's older brother. Edward and Bridget McNally came from Ireland, by way of New York, where their first two children were born. Among the five children born to them at Fayette were Thomas and Michael, Fayette's only set of twins. Edward worked in the charcoal kilns.

Fayette's laborers worked long hours. Without benefit of union organizations or governmental social programs, they struggled to put aside something from their wages of $1.50 to $2.00 a day for the inevitable periods of unemployment, which might be caused by a fluctuating economy, furnace breakdown, or lack of ore in winter. Although women did not work in the blast furnaces, they played a crucial role in stretching and supplementing family incomes. Some wives took in boarders to earn extra cash; others did laundry for local customers or for crews of boats that stopped at Fayette. Working-class women stretched their food budgets by keeping vegetable gardens and raising chickens.

Company officials had access to a great deal of information about the finances of families at Fayette. Employee accounts in the company's ledgers reflect much more than simply the number of hours each man worked and his rate of pay. Many of his expenses, including boarding costs or rent, butcher shop and general store purchases, and the company doctor's fees, were deducted from his monthly earnings. The company also designed what it considered to be genuinely benevolent employee programs. It allowed employees to purchase logged-over land, and financed the mortgages most workers needed in order to do so. A number of families acquired good farmland in this way and the company disposed of land that it could no longer use.

Not surprisingly, the Jackson Iron Company desired an orderly and hard-working labor force. Thus, it required that any and all regulations and orders of the superintendent be obeyed, at the risk of dismissal. The most contentious had to do with alcohol. In the early years all forms of liquor were banned in the village, and a great deal of energy was expended in enforcing the prohibition. Later, the hotel proprietor was permitted to keep a bar and saloons were tolerated at the edge of town. In 1879 worker Fred W. (Pig Iron Fred) Hinks, who was disabled on the job, was permitted by the company to open a saloon a mile northeast of the townsite. Another tavern or saloon, Neveau(x)'s, reportedly operated at a site a short distance farther to the northeast. The presence of a handful of saloons did nothing to soften the company's attitudes toward drinking. Those who indulged too freely were still subject to dismissal.

Although Fayette seems an isolated spot today, its nineteenth century residents participated in active local and regional networks of travel and communication. The village's direct shipping link with other Great Lakes ports kept it in touch with events outside the Garden Peninsula. During the navigation season -- May through November -- passenger steamers from Green Bay, Manistique, and Escanaba made regular stops in Snail Shell Harbor. Other vessels came and went to large ports like Cleveland and Chicago. During the winter a regular stage crossed the ice on Big Bay de Noc to Escanaba, which received news and goods from Chicago via telegraph and rail. Thus, it was only in fall and late spring, when the ice was forming or breaking up, that Fayette was truly isolated. During those few weeks, however, the editor of the Escanaba *Iron Port* complained that it took longer to gather and report news from Fayette than from New Orleans or San Francisco.

Apart from management concerns about alcohol use, the company did not formally regulate leisure activities. Residents were free to use their limited leisure time as they wished. Often they organized informally for sports and other activities. On Sundays and holidays, especially the Fourth of July, most of the village might turn out for a horse race or a baseball game. When the ball team traveled to another town, a steamer was frequently chartered to carry along the Fayette Cornet Band and a crowd of spectators laden with picnic hampers. Both the baseball team and the band brought together men with a variety of backgrounds and work skills. For example, in 1881 the band included the company doctor, two machinists, a kiln worker, and one of the men who dumped ore and fuel into the furnaces.

Christmas was usually celebrated with a tree in the Town Hall, whose branches were laden with presents for all the village children. Adult entertainments like masquerades and New Year's Balls were most often organized by Fayette's middle class, but they were attended by both workers and management. The people of Fayette were also familiar with other features of American life in the 1870s and 1880s: the village had an Odd Fellows lodge, an agricultural society and a debate club as well. Traveling lecturers, musicians, and dramatic troupes offered entertainment in the town hall.

Religion was important in small-town America in the late nineteenth century and Fayette was no exception. Jackson Iron Company officials allowed Congregationalists and Methodists to use its buildings for their services, and even collected church dues at one point. Fayette's mostly working-class Catholics initially met in private homes and were served by visiting priests beginning in 1867. The first resident priest arrived in 1876 and soon engineered the construction of St. Peter the Fisherman Church, located a short distance south of the townsite. The church burned in 1879 but was soon replaced. The Catholic cemetery south of the church which received the St. Peter the Fisherman name is thought to date back to the time of Fayette's establishment. The interaction of company and residents at Fayette was unique to the circumstances of its construction, operation, and demise. In many ways, however, the daily routine of work, school, shopping, and chores in the village was typical of other places in the Great Lakes and in other regions.

Fayette After the Jackson Iron Company Era

When the furnace closed, most people moved away, but a few stayed on. The store, post office, and hotel remained in operation, serving more the surrounding neighborhood than townsite residents. The state business directories indicate that the harbor served several fish dealers. Excursion steamers brought visitors to gawk at the almost deserted town.

Photos apparently dating from the 1890s after Jackson Iron's abandonment show the furnace complex with the boiler-blower room section completely unroofed and the casting houses with roof trusses and purlins intact but the roofs themselves gone except for portions of the east casting house roof. The end of the east casting house roof near the stack was already beginning to collapse. Most of the east casting house trusses and the wooden gable structure are still intact in a post card view postmarked 1911, but by then the west casting house's roof, judging from other photos, must have been completely down. Other views probably from about the same time show the charcoal kilns

still largely intact, but with obvious signs of deterioration, and the wooden railroad trestle running to the furnace's west end completely collapsed.

The Jackson Iron Company was absorbed by the Cleveland-Cliffs Iron Company in 1905 and Jackson Iron's Garden Peninsula property, including Fayette, came into Cleveland-Cliffs' possession. Ray A. Brotherton of Negaunee, Land Department engineer for Cleveland-Cliffs, in 1907 prepared a survey map of the townsite and a series of photographs of the buildings. Brotherton's 1907 map is the earliest we have of the townsite and his photographs illustrate numerous buildings -- especially houses -- that disappeared over the next fifty years. The Brotherton map, however, does not show all the buildings that were still standing as of 1907. It omits the sawmill, ice house, the two granaries near the jail, and the jail, all of which appear to have been standing in 1907 (the sawmill and ice house appear in the background of various of the 1907 series of photos). A photo of the tip of the peninsula area which shows an Escanaba & Garden Bay excursion boat -- the former Escanaba & Gladstone line was given this name in the mid-late 1910s -- clearly shows the sawmill roof in the background. Another photo of the lower harbor taken from Middle Bluff that postdates the 1922 burning of the company store clearly shows the ice house. Some buildings which were still standing in 1907 may have been omitted because they were ruinous or seemed no longer to have any economic value. The footprints of the log workers' houses are not individually depicted. Instead the map contains a note in the general location, Old log houses of little value.

What Cleveland-Cliffs planned for the site is not clear, but it is clear from a comparison of the 1907 Brotherton photos with post card views postmarked in 1911 and 1912 that between 1907 and 1911 the company carried out repairs (the 1907 photos show numerous broken windows, missing and damaged sash and doors, and other vandalism and deterioration) and had most of the surviving wooden houses, the hotel, office building, and town hall painted. A very light color was used for the buildings' bodies and the trim -- cornerboards, cornices, window and door frames, sash, and door panels -- made dark.
In 1916, barely a decade after its purchase, Cleveland-Cliffs sold Fayette. The new owners were Fred Van Remortel and Frank De Hooghe of Ashland, Wisconsin (Van Remortel eventually bought out De Hooghe). Van Remortel took up residence in the former superintendent's house. He encouraged the growing stream of auto-borne tourists by keeping the store and hotel in operation and also rented some of the houses. In general, however, the townsite's buildings and structures deteriorated during these years, and photos from the 1920s and 30s reveal a substantial loss of buildings. Painting and other maintenance was neglected and little effort made to keep previously open ground from returning to woods.

After the former company store burned in 1922, leaving only the stone walls standing, the hotel lobby doubled as the village's only store. The hotel continued to operate until the Second World War. During this period, the harbor -- particularly the docks and warehouses at the tip of the peninsula -- continued to see use by commercial fishermen (they still put in here during bad weather). The Fayette Fish Company shed, which stood near the lime kiln and quarry until demolished after the state park was established, probably dates from this period.

Van Remortel, coming along in years, sold Fayette in 1946 to Gladys Edwards of Detroit, who planned to develop a tourist resort. These plans fell through. Instead, in 1956 the Internal Revenue Service seized Fayette along with other property of hers for non-payment of federal income tax. IRS planned to auction the property in late 1956, but delayed until 1957, reportedly to give the state of Michigan an opportunity to bid on the property. The state had no funds for purchasing the Fayette property and the Escanaba Paper Company, a subsidiary of the Mead Corporation, ultimately purchased it for about $31,000. In early 1959 Mead, which had liquidated Escanaba Paper the previous year, exchanged its Fayette property with the state for some state-owned woodlands in the central Upper Peninsula. Additional portions of the site were obtained from other owners, particularly Cleveland-Cliffs. The Parks Division of the state Department of Conservation (now the Parks and Recreation Division of the Department of Natural Resources) assumed control of the property in March, 1959.

In the nearly forty years since the Fayette Historic State Park was established, basic stabilization of many of the buildings and structures has been carried out, some restoration has been accomplished, the townsite has been opened as a museum, and considerable historical research, structural analysis, and archaeological investigation has been done. Much remains to be accomplished in the way of restoration/rehabilitation and interpretation. A cultural resource management plan is currently being developed to guide development of the site in the coming years. Fayette was listed in the National Register of Historic Places in 1972.

Archaeology

Fayette became a state park in 1959, but aside from basic maintenance, major restoration, or research at the townsite had to wait until the mid-1970s. In 1974 the Michigan History Division (present-day Michigan Historical Center) of the Michigan Department of State contracted with the National Heritage Corporation to prepare a restoration and stabilization study for the site. This study recommended considerable archaeological research, and in 1975 the Michigan History Division arranged for Lyle Stone of Archaeological Research Services (ARS), a private consulting company, to evaluate the archaeological potential of the Fayette site. ARS developed a plan and recommendations for long-range archaeological research programs that contributed to research and interpretive development contemplated for Fayette.

The first archaeological work at Fayette began with a site surface survey. The survey involved: 1) reviewing known maps and photographs of Fayette from its various use periods; 2) conducting a surface survey noting artifact concentrations and surface features, such as depressions that did not correlate with structures shown on the maps; 3) observing architectural detail of standing structures as a potential basis for interpreting exposed archaeological features; 4) reviewing artifacts known or thought to be from the site; and, 5) gaining a "feel" for the site's layout and content.

The site survey was followed by test excavations. Using the knowledge gained by the survey, as well as background research, excavation units were selected to sample a cross section of different time periods; residential, mercantile, and industrial structures; and high- and low-status residential areas. Large quantities of stoneware and earthenware ceramics, window glass, bottle glass, buttons, plaster, animal bone and slag (charcoal and scrap iron) were excavated. Most of the artifacts dated between 1860 and 1910. What surprised the archaeologist was that most of the artifacts were strictly utilitarian in nature and did not clearly reflect the presence of high-status individuals (such as the superintendent) who had lived at the site for years or were task specialists. This problem probably was caused by the small size and number of test pits and the fact that cultural variables such as status or occupation could only be detected through extensive testing or full-scale excavation.

In the course of the project, it was discovered that furnace waste, primarily slag, was spread over the entire site indicating that it had been used to fill in and level natural depressions. Charcoal had been used in leveling, as a base for roadways, and as insulation under basement floors. Useful construction materials such as old firebricks -- acquired when the furnaces were periodically relined -- were frequently used in new construction. Most of the features, like the foundations, were in excellent condition and showed little evidence of relic collecting after the site had been abandoned. The photographic record had been helpful, however, since the existing maps were frequently wrong.

Stone was enthusiastic over the results and recommended that the archaeological resources at Fayette could be used in providing data on artifact types and architectural data for reconstruction and restoration; providing groups of artifacts associated with specific structures and activites that could be used both in building reconstruction and exhibits; corroborating, supplementing, or adding to the existing documentary record; defining geographic and subject areas that requiring additional historical research; and, providing "archaeology in progress" as an aspect of continuing visitor education at the site.

Stone also recommended research priorities that have guided archaeological work at Fayette to the present day. Stone's recommendations included:

> A detailed survey and inventory of Fayette's archeological, architectural and environmental resources, not just those in the town site, including other sites on the Garden Peninsula historically relevant to Fayette.
>
> A survey of the underwater resources in Snail Shell Harbor.
>
> A test excavation of each of the site's commercial, industrial, social and domestic components (for example, the company store and the workers' cabins).
>
> An investigation be undertaken to answer specific questions about such topics as the site's history, its structures, and its topographic development.

During Michigan's financially difficult years of the late 1970s and early 1980s, no additional work was done to carry out these recommendations. In the spring of 1986 the proposed reconstruction of the porches at the superintendent's house and a loading dock at the opera house offered Michigan Historical Center archaeologists the opportunity to obtain clues to guide the reconstruction. This was particularly important since existing photos were unclear about how the porch foundation was built. Excavations at the opera house loading dock yielded no evidence on how the earlier dock had been built, but the situation was different at the superintendent's house. Test excavations showed that the porch had been supported by a limestone slab foundation, much like the foundation of the house. In the course of sifting the excavated dirt, it was noted that prehistoric Indian artifacts were present -- projectile points, fragments of pottery vessels, flint chips from the manufacture of stone tools and large quantities of animal and fish bone and scales. Furthermore, the artifacts were found at depths of up to two feet. This was an exciting discovery in that no prehistoric artifacts had ever been reported from Fayette before. But the discovery created a new set of problems and considerations. What was the surface extent of the site? How deep was it? What was its significance? Would planned reconstruction of the fence around the superintendent's house and outbuildings have a serious effect on the prehistoric site?

During the late summer of 1986 ten two-foot square test pits were excavated along the side of the house and down the slope to the harbor. The densest concentration of material was in the immediate vicinity of the house, but the site extended down the hill to at least the sawmill foundation. No pits, hearths or burials were discovered. The results of efforts indicated an extensive site that would not be seriously damaged by construction of the fence. Preliminary analysis of these archaeological materials indicates that the hillside next to the superintendent's house was used as a warm weather campsite by prehistoric Indians between one and two thousand years ago. We do not know what tribe they were, but they had a lifestyle that was based entirely on hunting, fishing and gathering wild plant foods. They grew none of their own food. Since the test excavations were completed, several other artifacts have been found that suggest that Indians were at Fayette three thousand years ago. No evidence of habitation of the area by any of the historic tribes of the area has been detected.

Later in the summer of 1986, Patrick Martin, a historical archaeologist from Michigan Technological University, under contract to the Michigan Historical Center, excavated one of the laborer's log houses at the south end of the townsite. No log dwellings survive at Fayette. A poor quality photograph showed us what one of them looked like on the outside. We had absolutely no documentary or photographic information about the interior of these buildings. Archaeology was the only way to obtain the information necessary to allow reconstruction.

Martin found that the house he excavated was a small, simple structure built of rounded white pine logs and containing less than 400 square feet of living area. The walls were chinked with lime mortar on the exterior and

plastered and painted on the interior. The house had a small root cellar for food storage. Large quantities of charcoal were used as fill and probably as insulation around the perimeter of the building. There was evidence of at least some pine flooring. There was minimal door hardware and window glass suggesting that it was not complex inside and had few windows. The arrangement of brick rubble and the lack of a major hearth or chimney base suggests that there was a suspended chimney. The low social status of the families who lived in this house is signaled first by its exposed position near the lakeshore and strongly supported by the large and diverse artifact assemblage found throughout and around the structure.

The majority of the ceramics were undecorated ironstone tableware (always the cheapest). Analysis of the animal bones by Terry Martin of the Illinois State Museum showed a preponderance of low- and medium-value cuts of meat. The pattern of consumption and disposal of food remains and trash in the immediate vicinity of the house are typical of lower class, low-status households.

During the spring of 1987 the Michigan Historical Center did a test excavation at the site of the proposed new tourist boat dock southeast of the superintendent's house. Under one and one-half feet of fill a soil horizon containing prehistoric flint chips and a few historic artifacts was discovered. In 1988 the curving driveway of large dolomite slabs and the walkways leading up to the south and west sides of the porch on the superintendent's house was excavated. While the walkways are contemporary with the original house construction, the driveway probably dates to a post-Jackson Iron Company occupation since there is no connection between the driveway and the west walkway.

Problem-oriented archaeological work by Michigan Technological University continued with excavation of the stock barn foundations, a project that produced significant structural information, but few artifacts. The hotel privy was excavated in 1991. It was a large, deep, masonry structure containing massive deposits from its period of use as a privy along with later deposits related to its use as a repository for building refuse when the hotel was refurbished. In 1995 MTU undertook an ambitious excavation project comparing the contents of privy vaults and household refuse across the range of the community's presumed social classes and occupations. The expected social differences that Stone's excavations were unable to discern were made readily apparent by this project.

MTU also monitored construction activities around the furnace complex while they were being reroofed and archaeologists from the Office of the State Archaeologist tested the location for a new vault toilet, the locations of interpretive signage, around the base of the Doctor's House, and the route of a handicapped access road into the townsite.

Archaeological research at Fayette continues to reveal the townsite's and area's exceptional richness, variety, and abundance of research problems and potential opportunities. Few sites anywhere in this country can match Fayette's potential for industrial archaeology, residential historical archaeology, underwater archaeology, and prehistoric archaeology in one relatively small package. Archaeology will continue to be a major component of any future reconstruction and interpretation at this site.

Conclusion

Fayette reflects the rapid industrialization of the United States, led by the growth of the iron and steel industries, and the development of a national economy that took place by the Civil War as the industrial frontier moved west. By the Civil War, Michigan's Upper Peninsula was the nation's largest producer of iron ore, but the primary markets for the iron were in distant places such as Chicago, Cleveland, and Pittsburgh. Fayette's establishment also reflects the mid-nineteenth-century growth and development of transportation systems -- railroads and shipping on the Great Lakes -- and technological achievements such as ore docks and improvements in smelting technology that made long-distance shipping from source to market feasible. The town exemplifies the development of mining company-owned company towns in the upper Great Lakes, the national center of iron as well as copper mining from the 1850s through most of the rest of the nineteenth century, as a response to the locating of the mines and related

facilities such as Fayette's smelter in isolated and newly settled areas. Like other mining company towns in isolated locations, Fayette dates from the period after the beginning of large-scale immigration from Europe, which provided an abundant supply of cheap labor and reduced the company's need to provide amenities such as good housing to attract and keep an adequate work force.

Although not a mining town, Fayette was built by a mining company and was a true company town. Its property was owned entirely by the Jackson Iron Company, and its houses were occupied entirely by employees (and their families) of the company. Like many company towns in the nineteenth century regardless of the specific industry, Fayette was not planned -- in the sense of some towns in the early twentieth century and later that were laid out by professional landscape architects and planners. But it was planned in the sense that industrial, administrative and commercial, and residential uses were separated, and each component (excluding the workers' housing area) sited to best advantage for the sake of efficiency. Like other company towns, it had a small business district that included a company store and a building housing an auditorium for social events, and it had zoned areas of housing, with better-quality housing for the generally English-speaking skilled and managerial workers separate from the lesser-quality housing for the generally foreign-born work force. The isolation of company towns such as Fayette tended to encourage, as Margaret Crawford noted in Building the Workingman's Paradise: The Design of American Company Towns, near-feudal control by the company, with arbitrary rules, monopolistic company stores, and company officials holding elective offices.

Fayette's housing also appears typical of mining town company housing in the Upper Peninsula. The predominant type of housing for managerial and skilled workers, the one-and-one-half-story side-gable one- or two-family house with rear leanto, was common in copper-mining towns such as Phoenix, Central Mine, and Delaware as early as the 1850s and was still being built at Painesdale and other places in the western Upper Peninsula at the turn of the century. This and other house forms seen in Fayette's supervisory and skilled workers' housing area exemplify standard upper Midwest house forms of the time. It is unlikely, however, that any other Upper Peninsula company town site retains so many examples of company housing from such an early date that retain their historic character to the degree seen at Fayette. Log houses, especially small one-and-one-half-story side-gable buildings such as those which appear in the one photo we have of Fayette's workers' housing area, were also typical of workers' housing in iron-mining locations such as Pork City, Falls Location (Crystal Falls), and Mansfield Location in Iron County.

Iron furnace sites in Michigan and across the United States have generally left few above-ground remnants behind -- most often only the furnace stack and a few foundations -- as evidence of what was once a key industry. The Archaeology of Iron, Chapter 11 in Robert B. Gordon's American Iron, 1607-1900, identifies twelve iron furnace complexes in the United States that are not only open to the public as museums but are also unusually well preserved, well interpreted, historically important, or illustrative of the geographical settings of ironmaking (p. 233). Many of these key properties -- including such well known sites as Saugus, Batsto, and Hopewell -- relate to periods earlier than the mid- to late nineteenth century or retain relatively little in standing above-ground features. What is unusual about Fayette, in addition to its beautiful setting, is the variety of historic resources which have been preserved here, the unusually high overall integrity of the site and its historic resources, both above and below ground -- the product both of the site's isolation and its long period of protection as a state park -- and the wealth of the written record that has survived that will in the future facilitate interpretation of all aspects of the site.

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Boundary Description

Includes all of Fayette Historic State Park.

Justification

Historic resources related to the Jackson Iron Company's operation are located throughout the entire park. Additional resources are scattered throughout a broad area of the Garden Peninsula. The state park property contains the only contiguous concentration of these resources.

Photographs

Photographer: Scott Brooks-Miller
Date: August, 1996
Negatives: SHPO

1. Quarry, looking east.
2. Furnace complex, east and north facades. Stone walls of company store on right.
3. Retaining wall on left, reconstructed charcoal kiln on right, furnace complex above. From the east.
4. Furnace complex, west and south facades. Railroad trestle abutments in foreground. Hot blast oven ruins beneath canopy.
5. Dock remains in front of furnace complex, looking northeast toward Middle Bluff.
6. Dock remains, in front of furnace in foreground, at tip of peninsula in background, looking north.
7. Curve Street looking west. Railroad embankment and trestle abutments in foreground; machine shop (stone walls), hotel, company office, town hall, and company store/warehouse ruins, from left to right.
8. Machine shop, north and west walls.
9. Company store/warehouse ruins, west and south facades.
10. Hotel, northeast and northwest facades.
11. Town hall, southwest and southeast facades.
12. Sheldon Avenue looking southeast. Town hall on left, hotel in center-right background, 1907 map building 10 foundation and building 9 in right foreground.
13. Sheldon Avenue looking west-northwest. 1907 map building 7, building 8 foundation, building 9, and building 10 foundation on left, from left to right.
14. 1907 map building 9 left, building 8 foundation center, and building 7 right, from the south.
15. 1907 map building 9, northeast and northwest facades.
16. 1907 map building 1, south and east facades.
17. 1907 map building 4, north and west facades.

Part D:

Historic Chronology / Site History

Part D: Historic Chronology of Fayette

INTRODUCTION OF EPISODES

There are several pivotal years in the development of Fayette. Based on these, the history of the Fayette Townsite can be divided into four distinct episodes of time. These episodes reflect the townsite's successive tenures of ownership, occupancy, and development. As a result of these periods of change, the most apparent physical changes have been the addition and subtraction of buildings within and around the townsite. However, there were also significant, related and unrelated, changes in the vegetation, circulation patterns, and natural features of the landscape which effected life at Fayette.

Physical investigation at Fayette has revealed that a significant amount of original materials, and the markings of the site's former inhabitants on the landscape, remain throughout the site. However, an extensive amount of change, especially that which has been the result of deterioration, has also affected the townsite's appearance.

EPISODE I: PRE - 1866

Prehistoric Activity

Archeological research of the area surrounding Snail Shell Harbor has provided evidence of prehistoric activity. Further analysis of archeological records will be analyzed and relative information will be included in the next submission of this report.

The Presettlement Landscape

A surprisingly detailed glimpse of the pre-settlement appearance of the Garden Peninsula can be gleaned from the notes of federal surveyors contributing to the General Land Office efforts in Michigan between 1816 and 1856. The Garden Peninsula was surveyed in 1850 by Algernon Merryweather. He simply noted, "deep water, good harbor for Schooner."

In 1995, the Michigan Natural Features Inventory completed the compilation of digital maps of presettlement vegetation, primarily based on the federal survey records. These maps and their accompanying documentation are the primary source of information for the description of Episode I vegetation.

Presettlement Vegetation. [1]

Surveyors noted vegetation along each one mile section line and recorded the "witness trees" at the intersection of section corners and half-miles.[2] Thus, a completely accurate description of presettlement vegetation is impossible, but generalizations can be made for Snail Shell Harbor, based on patterns elsewhere on the Garden Peninsula and specific knowledge of the soil and topography.

Because of the occurrence of thin lacustrine sand over bedrock, spruce-fir-cedar forests were commonly noted by the surveyors on the Garden Peninsula. "Areas of open grassland (alvar) probably occurred within these conifer forests on the southern half of the Garden Peninsula. Recent ecological surveys have discovered small areas of alvar, but these are small enough that they might not have been encountered by surveyors."[3] The alvar community, comprised of sedge, grass, and scattered shrubs and trees, has not been noted in the immediate vicinity of Snail Shell Harbor. However, the thin soil over dolomite bedrock suggests characteristic conditions the development of the alvar community.

Wetlands along the shore and extending inland supported cedar dominated forests that also included tamarack, balsam fire, red maple, paper birch, black ash, black spruce, hemlock, quaking aspen, and balsam poplar. Dune and swale complexes were common in embayments along the Lake Michigan shore. White pine and red pine dominated the ridges in these areas, with white spruce, balsam fir, and hardwoods. Hardwoods included maple, birch, and beech.[4] Northern white-cedar often dominated the lower ridges. Marshes may have occurred in a narrow band near the lake, but because of the wave action at Snail Shell Bay they would have been limited.

From historic documentation it is known that hardwood forests existed around Snail Shell Harbor and that conditions fostered the growth of Mesic Northern Forests. The 1867 report of the Jackson Iron Company described the land purchased at Snail Shell Harbor as "nearly all heavily timbered."[5]

Little is documented about the groundstory vegetation, with the exception of some descriptions of the early landscape and its vegetation provided by James H. Langille in his novel Snail Shell Harbor:

> There is scarcely a more romantic spot in all this region. The point itself, with its short, dense growth of cedars and white birch, pushing to the very edge of an abrupt shore of bright limestone [dolomite], forms a motley contrast with the tall, dark green forest clothing the higher land, which rolls up against the horizon beyond. . . The eastern curve of the harbor, formed by the mainland, is a continuous bluff of limestone [dolomite], rising up out of the water like a perpendicular wall some 150 feet. Its strata are smoothly cut and clearly marked, and look like a huge piece of masonry. Shrubbery has grown out of its chinks; and vines creep about it in various directions, and hang in rich festoons. At its base, fragments of stone, shaped like broken columns, rise to a considerable height out of the water.[6]

Elsewhere he states that "great varieties of wild flowers, curious in forms and colors, began to peer in beds of moss, to creep over rocks, and hang from cliffs."[7] Langille, who spent some weeks at Fayette in about 1870, describes a landscape that mirrors Snail Shell Harbor quite accurately. In general, the novel probably is much more accurate in its descriptions of the landscape than in descriptions of people and events.

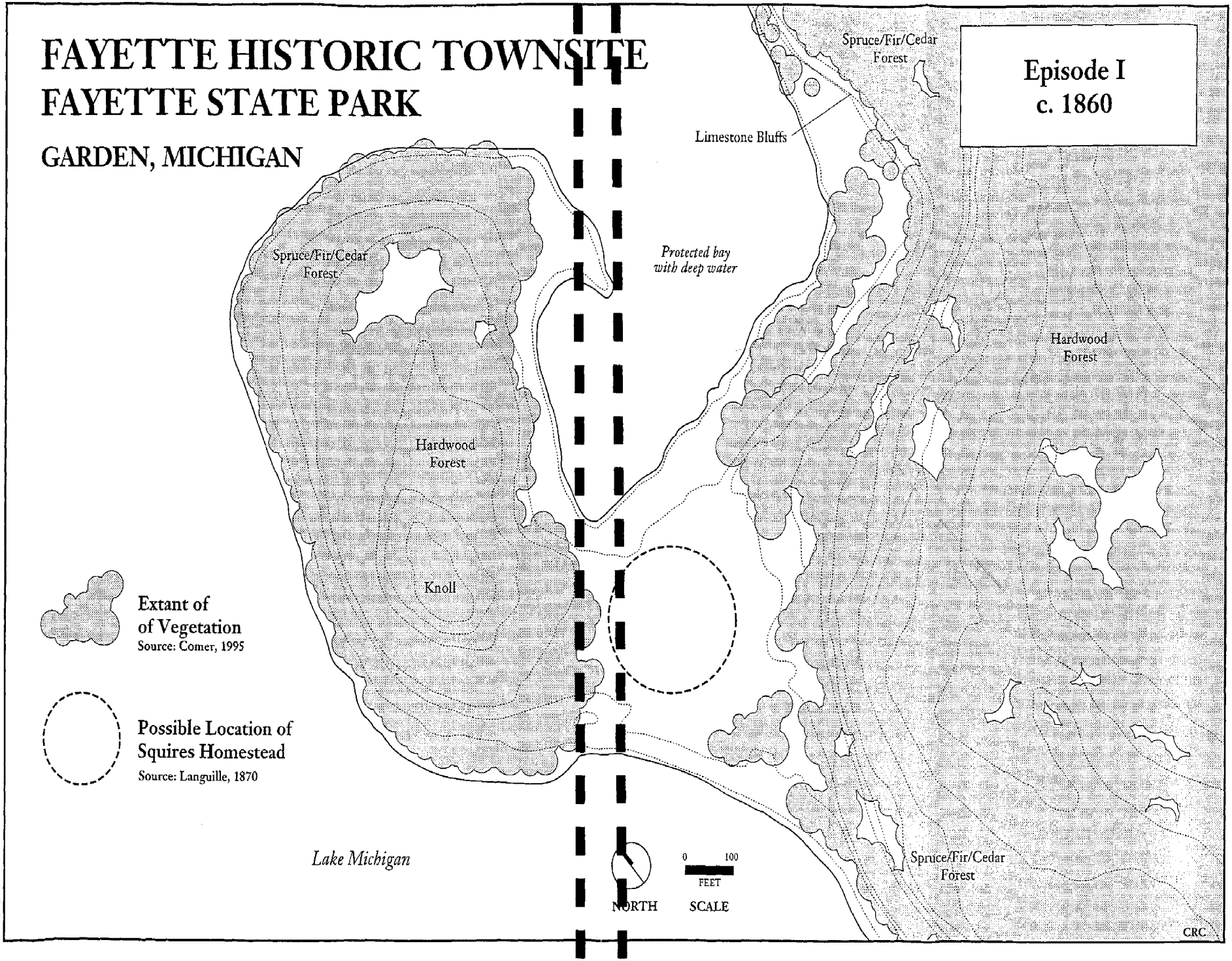
Early Settlement

In June 1861 H.G.D. Squires filed a homestead claim for 30.41 acres on the point of land that shelters the west side of Snail Shell Harbor. Shortly after, he filed a claim for 142 acres to the east of his original claim, encompassing the bluff on the east side of the harbor. During the six or seven years Squires and his family were settled at Snail Shell Harbor, they built "two log houses, stable and a few small outbuildings."[8] They also had "two or three acres planted with fruit trees and under cultivation."[9] In its purchase of the Squires property, the Jackson Iron Company reported that Squires kept "some cattle."[10] Langille's description of Sandy's homestead may reveal the location of Squires' settlement, if not the exact appearance:

> The home of the solitary family was a long, narrow, low, log hut, in the inner most curve of the harbor, and close to the waters edge. One end was the dwelling, and the other was a store; for this was the commercial point for more than twenty miles around. An additional small shed near by, for the cow, made up the buildings of the locality.[11]

In 1867-1868 Squires sold the property to the Jackson Mining Company. The changes he made to the landscape -- minimal clearing and construction -- pale in comparison to the changes to be wrought by the mining company over the next 25 years.

A few years prior to the land purchase, General Agent Fayette Brown, who had been with the Jackson Iron Company since 1862, sent "landlookers" to explore the Garden Peninsula and its potential for constructing a blast furnace. They returned noting the worthiness of the site. Following their visit, the company reported to its stockholders that: "No better location can be found than this.... [Its] ample supplies of wood, ore and limestone,... its facilities of water transportation direct from the furnace, its safe harbor, capable of receiving the largest [of] lake steamers, all go to render it the best location than can be found for manufacturing the best quality of charcoal iron."[12] Furthermore, the site was only a short distance across Big Bay de Noc by boat from Escanaba, which was


FAYETTE HISTORIC TOWNSITE
FAYETTE STATE PARK
GARDEN, MICHIGAN
Episode I
c. 1860
Spruce/Fir/Cedar Forest
Limestone Bluffs
Protected bay with deep water
Spruce/Fir/Cedar Forest
Hardwood Forest
Hardwood Forest
Knoll
Extant of of Vegetation
Source: Comer, 1995
Possible Location of Squires Homestead
Source: Languille, 1870
Lake Michigan
NORTH
0 100
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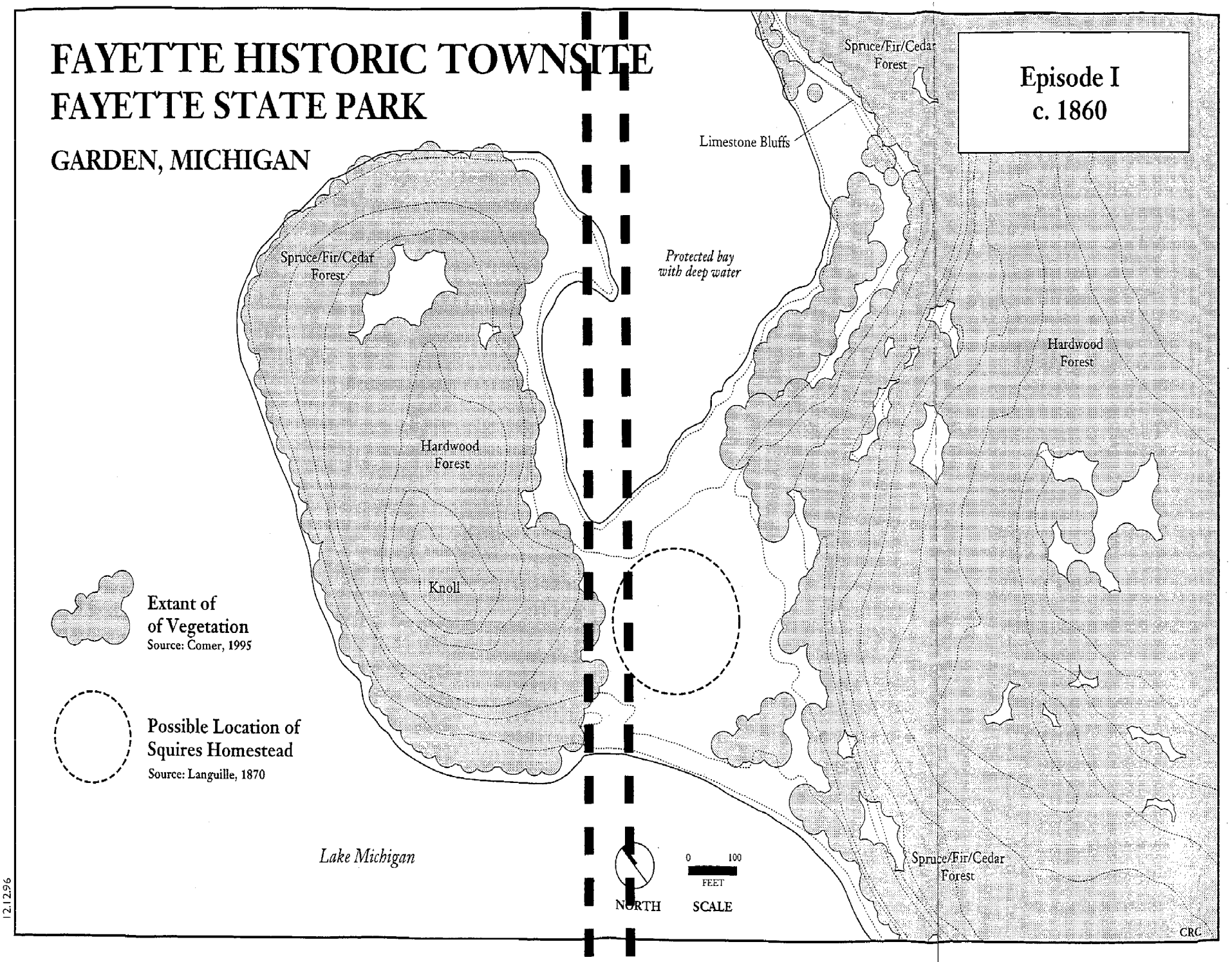
SCALE
Spruce/Fir/Cedar Forest
CRC
12.12.96


FAYETTE HISTORIC TOWNSITE
FAYETTE STATE PARK
GARDEN, MICHIGAN
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Extant of of Vegetation
Source: Comer, 1995
Possible Location of Squires Homestead
Source: Languille, 1870
Lake Michigan
NORTH
0 100
FEET
SCALE
Spruce/Fir/Cedar Forest
CRC
12.12.96

Because "livestock roamed freely about the laborers huts," it can be assumed there were no **fences** around the workers' housing.[72] In contrast, there was a fence around the superintendent's house. According to a photograph taken between 1875 and 1880, the fence was a board fence like the reconstructed fence evident today. By 1907, a picket fence surrounded the house.[73]

By 1879, a half-mile race track for horse racing was built on Furnace Hill east of the townsite.[74] According to the *Escanaba Iron Port* in October of 1879, "Our **boulevard** [race track] is still the attraction, and the **park** is thronged nightly."[75] Further research is needed to explain the race track and nearby ball park.

The **dock** extended from the furnaces around the harbor to the sawmill.

Gardens were located on ledges behind the log cabins, according to the "Fayette Historic Structures File." Friggens stated that residents maintained gardens on the south ridge of Furnace Hill.[76]

Vegetation

In the early years of charcoal production at Fayette, hardwoods such as beech, birch, maple, and ironwood were harvested in tremendous quantities. Beginning in 1881 the softwoods like basswood, white pine, and tamarack were used for charcoal production, leading to the harvest of these resources too. The vicinity of Fayette may have been spared the forest decimation of much of the Garden Peninsula because of the Jackson Iron Company's policy to keep its own woodland in reserve and to purchase as much green hardwood in four foot lengths from others as much as possible.[77]

From historic photographs, it appears that the west side of the harbor was never completely harvested. In 1870 it was reported that "The buildings that have been erected since Mr. Brown took charge are comfortable and homelike, while the main street "Stewart Av." is located through a beautiful little grove and the houses so encircled by trees as to be invisible (sic) until one is close beside them."[78] Figure III-2 shows the cleared mid-section of the community, with dense tree growth rising up the knoll to the north and toward the plateau to the south. In contrast, the plain to the southeast of the townsite was completely cleared of trees.

With white settlement at Snail Shell Harbor came the introduction of non-native species of plants. Earlier, Squires had cultivated fruit trees and had a small amount of land "under cultivation." Clearly a subsistence operation, Squires probably cultivated vegetable crops for the family and feed crops for his livestock.

Residents of Fayette maintained vegetable gardens and planted fruit trees purchased from the "fruit tree man."[79] Today, apple trees that probably are descendants of these trees have proliferated throughout the site. Rhubarb, perhaps descended from the early gardens, grows in various locations around the townsite. Very old lilacs thrive at the Superintendent's House (Building #1) and near the Hotel (Building #100) -- possibly remnants from this episode, although that is not clear from the historic photographs.

The Departure of the Jackson Iron Company

By the late 1880s, the Jackson Iron Company was forced to purchase ores from other mining concerns, its machinery, which was constructed in the 1860s, was wearing out and the local hardwood fuel supply was quickly diminishing. Furthermore, charcoal iron was being crowded out of more and more markets by improved steel and coke irons. Subsequently, by 1891, all these factors contributed to the end of the Fayette operation, as well as a decrease in the American charcoal industry in general. However, according to Tom Friggens, this shouldn't be a surprise. He states that:

> It was not remarkable that a town should bloom and die in the early years of Michigan industry. In Northern Michigan the late nineteenth century were years of company rule. Fayette was established by the Jackson Iron Company to gain the greatest profit in the shortest time. When its resources were exhausted and the profit was made, the company had fulfilled its mission. When

5. a furnace refuse deposit along the SE corner of the square containing slag, charcoal and smelted iron fragments
6. crushed red limestone
7. sod

Zone six, the crushed red limestone, was interpreted as the actural road fill and surface, while zones three and four were considered a prepared base for the road. It was determined that zone two "had been used as a road prior to the construction of the overlying prepared surface, since a N-S trending groove or furrow (ca. 2' wide) was noted extending into zone two. This furrow was then bordered with sand, covered with charcoal and the surface leveled with crushed limestone. The noted furnace refuse deposit (zone five) may also have been a part of the prepared road base. The artifacts recovered from this test unit indicate that the road was contemporaneous with the Fayette townsite and with the adjacent workers residences.[66]

In 1996 John Halsey and Dean Anderson conducted test excavations because of the proposed relocation of the pit toilets and construction of a new access route from the parking area to be built for disabled visitors. They discovered that the proposed access route "is actually one of the original roads into the townsite splitting off from the main road coming up from the south. It runs along the southwest side of the stockbarn and continues on as the back road on the western side of the peninsula. These units showed a consistent sequence of sod, humus, slag, and the orignal humus overlying the ubiquitous fossil beach cobbles. The slag level varied considerably in thickness from unit to unit."[67]

Although further archeological testing is needed to determine the composition of various roads within the townsite, from available test results it appears that slag was used as a subbase and as a surface treatment for roads, and crushed red limestone was used as a surface treatment. The use of dolomite during the productive years at Fayette is unclear. Although the existence of the quarry would indicate an abundance of dolomite gravel, perhaps this source was not tapped for roads and, instead, crushed red limestone was brought in.

In 1870, six miles of rail tracks were built for the narrow gauge train that was to bring fuel from other kiln sites. By 1871 the train was in operation, and by 1882 pole-roads branched from the main trunk to better remove felled timber.[68] Less attention was paid to the preparation of the railroad beds before the track was laid. In 1988 John Halsey conducted test excavations in the railroad right-of-way leading into the furnaces. He discovered that:

> the top .3 ft was pure forest loam, but the next .5 ft was mixture of limestone gravel and blocks, slag and a few historic artifacts such as nails, small ceramic fragments and cut animal bone. The level from .8 to 1.0 ft had many fewer rocks, but a very high proportion of animal bone fragments. From 1.0 to 1.2 ft there were few artifacts, but a considerable quantity of brick fragments, mortar and the like and blotchy earth mottling. Below this the earth became very hard-packed, platy and filled with charcoal for a depth of about .3 ft, but contained no artifacts. . . This pit revealed evidence of only minor deposition connected with the Jackson Iron Co. period at Fayette, probably only incidental disposal or filling connected with its use as a transportation corridor.[69]

Site Features

A general image of Fayette in its industrial heyday can be constructed from writings, photographs, and extant remains. The roads and rails that traversed the townsite can be located and vegetation can be described with a fair degree of accuracy. However, it is impossible to inventory and describe every detail of the site. Following are descriptions of site details, other than buildings which are described elsewhere:

"The chief **water supply** came from the Bay. A water pipeline was laid across the width of the village."[70] A central pump supplied most needs of the community, eliminating the need for the wells that supplied limestone-tainted [dolomite-tainted] water to some houses.[71] A well was located between the superintendent's house and the sawmill, closer to the house, according to the Fayette Historic Structures File.

> fact that 'fresh' water was pumped from the harbor and waste water piped back into the Bay was a paradox not reckoned with."[63]

Well water supplemented the supply from the Bay; however, local dolomite left it tainted. Tom Friggens writes of an historic account of the situation, which states, "The water in the wells is full of it [dolomite], and how the people can wash with ordinary soap or keep from having full grown mortar-beds in their stomachs form drinking it, is an accomplishment entirely their own.' In later years a central water pump [located near the company store] supplied 'nearly all Fayette,' and its clanking disturbed as many."[64] Figure III-23 shows the hand-pump, which was located at the center of town just south of the company warehouse (Building #102B). Prior to its construction, it is assumed that individual wells were located around the peninsula near the residences. Historic documentation suggests that the well located between the Superintendent's Residence (Building #1) and the Sawmill (Building #135) was used into the twentieth century.

It appears that the hotel provided the best domestic water supply at Fayette. Tom Friggens states that, "Running hot and cold water was pumped from the harbor [to the hotel], heated by [the] furnace boilers, and piped underground to [the] washrooms."[65] It is assumed that the hotel was the only building whose washrooms were supplied with both hot and cold water. Furthermore, historic documentation indicates that there was a sink located in the Superintendent's Office which was at the rear (east end) of the first floor of the Company Office (Building #108). It is assumed that the water line that fed this sink was a branch from the larger line which serviced the hotel. It appears that the large stock barn (Building #113) also had a water line leading to it. The water line was identified during Patrick Martin's excavation of the structure and OSA's 1996 test excavations in the road that runs along side of the stock barn.

Circulation Systems

Although Fayette's marketing and transportation needs were best met by ships arriving at the extensive docks, roads leading from the town served an important function. Roads led from Fayette to Garden, Manistique, and Escanaba. The route probably followed what became designated County Highway 483. The two-day trip to Escanaba could be made by stage by 1872, and by 1880 three stage lines served Fayette. The lines carried freight and mail as well as passengers. During the winter months direct routes over the ice were used by stages with sleigh runners.

Roads within the townsite were a prominent component of the historic landscape, and served to delineate functions within the town. Housing was concentrated along Sheldon Avenue and Cedar Street, which led south out of town. (The Episode II map only shows a fraction of the houses that were along this road.) The commercial and social core of the community was on Stewart Avenue and Harbor Street. The industrial complex was served by an unnamed road. From historic photographs it is evident that the streets were of random widths with poorly defined edges. In the commercial area, instead of a distinct street, there was an open area linking the buildings (Figure II-6).

The historic photogrpahs show the roads as light colored or mottled. The light colored roads probably were unpaved or surfaced with crushed limestone (dolomite), and the dark colored roads probably were surfaced with slag, perhaps mixed with limestone or dolomite. In 1975 Archeological Research Services from Tempe, Arizona, tested an "area adjacent to and between structureal units in Area 50, in an area thought to be a path or road betweens buildings." The firm discovered seven layers:

1. undisturbed sterile beach gravel
2. brown organic humus containing miscellaneous mid to late 19th century artiafacts
3. a discontinuous, sterile tan-grey sand zone
4. a charcoal zone

converted to clapboard siding, with the exception of a few elevations (usually those that were enclosed within additions). Physical investigation revealed that the clapboard siding was often attached directly over the original board siding (with only the protruding battens removed).

Construction of housing for the employees and residents of Fayette continued steadily during the first several years of the furnace's operation. The *Escanaba Tribune* reported that by July of 1870, in addition to several industrial and commercial structures, "living accommodations for some 500 populations [sic]" had been constructed. Most of the supervisor's residences were single-family houses constructed in a salt-box configuration. Also, several duplexes along back street that runs along the western shore of the peninsula (#20/21, 22/23, and 30/31) were constructed ca. 1870 - 1872. Several references to the ongoing construction of houses at Fayette were noted in local newspapers, such as the *Escanaba Tribune*. In April of 1872, it noted that, "We have in [the] course of construction five new dwelling houses."[56] By 1883, there were apparently 19 [supervisors'] houses which were occupied. The Jackson Iron Company's Journal, in May of that year, states that rent was paid on 19 houses and that the rent ranged from $2 - $7.

In addition to the houses constructed west of the town center, some were within or very near the center itself. The main east-west street through the center continued west and many houses were located along its south edge, (Figure III-16). A local newspaper article described this street as being well suited for housing. It states, "The main street, 'Stewart Avenue' is located through a beautiful little grove and the houses so encircled by the trees as to be invisable [sic] until one is close beside them."[57] Furthermore, the houses located along the "back street" which continued along the western shore of the peninsula, were also quite desirable, as stated in another article. It states that, "Mr. J.P. Jubb's house is nearing completion. He will have a fine view of the bay and all our surroundings."[58]

Workers' cabins (Site #50):

Historic documentation indicates that there were living quarters, of some type, for nearly 300 people by the time the Fayette furnace went into operation in December of 1867. "There are also some twenty or thirty log shanties, all occupied, but they are on the opposite slope from the little bay, the location being very neatly surrounded by water."[59] It is assumed that several of these workers' cabins were some of the earliest structures at Fayette that housed its construction crews.

Since it appears that only a handful of residences were constructed for company supervisors' by this time, it is most likely that the majority of the housing was the workers' cabins located south and east of the townsite. Although none remain, they have been described as "Two story dirt floor log cabins [that] were provided for the common laborer along the bluff near the railroad tracks. Common laborers were colliers who worked at the charcoal kilns, teamsters who worked the horses in the woods hauling wood for charcoal and logs for lumber."[60] "These cabins were double, one-story structures measuring approximately 15' x 20'. Those within [the] townsite area had hewn logs but those huddled against the shore bluff had round, unhewn logs braced with poles. They had no floors, no lofts, nor foundations."[61] However, recent excavations at some of the cabin sites suggest that the floors may have had wood plank floors. Historic documentation indicates that some were occupied by multiple families. Furthermore, archeological evidence has also suggested that some of the cabins had plank floors and that some of them may have been duplexes.[62]

Utility Systems

According to Tom Friggens, the utility systems at Fayette were not what would be considered ideal today, although they were relatively good for the time. He states that:

> The chief water supply came from the Bay. A water pipeline was laid across the width of the village. A large hydrant valve, boxed in wood, was a precaution against fire and supplied the hotel and stock barn 'with water for daily consumption.' The

A contract between a man named Patrick Quinn and the Jackson Iron Company exists from August of 1867. It states that, "Quinn [is] to build 4 dwelling houses according to plans and specifications of agent."[49] It is believed that these four houses are #6 through 9. The Mining Journal noted that by 1869 there were "nine good frame houses, all with the necessary out-buildings..."[50]

One document related to the Fayette's history states that the residential structures, which originally had board and batten siding, were generally unpainted, and that their "whitewashed window sashes contrasted against their natural barn-red siding."[51] However, some paint evidence left on some structures reveals that the board and batten buildings may have been painted a dark red color rather than left unfinished, which would also contrast with the light colored windows. Evidence of the contrast between windows and siding is apparent on several of the Supervisor's Residences in Figure II-7, (taken ca. 1875 - 1881).

In addition to the houses built for the company's supervisors and workers, there were two unique houses built near the north end of the peninsula. These included the largest of the homes at Fayette, that of the Company Superintendent, (Building #1) and nearby, the only house with a brick ground floor, the Doctor's House (Building #2).

Superintendent's House (Building #1), constructed ca. 1867 - 1869:

In 1869, the *Mining Journal* stated that, "The house of the Superintendent, Mr. Harris, is particularly well built and finished."[52] In 1875, the house was remodeled. This remodeling included the addition of a second floor over the previously one-story kitchen wing and a connecting stair, and frame back buildings between the house and barn structures."[53] A few years later, the *Mining Journal* again noted some of the exceptional qualities that this house had. It stated that, "J.B. Kitchen... is having the "white house" fitted up in fine style. It is being grained, calcimined, and varnished by an artist who understands his biz."[54]

This house was the largest at Fayette, and was called the white house by the workmen of Fayette. Some historic accounts state that the house was referred to as the "white house" because of the white rail fence that enclosed its yard, while others state it was because it was the only residence that was painted white in the entire town. Figure II-7 does reveal the contrast in color of the bright Superintendent's House with the surrounding residences which appear to be painted a darker color. It was also said that the superintendent had the only plastered, wallpapered, three seater privy in town. Several outbuildings were constructed just north of the house, including a storage shed and stable located north of the house, (Figure III-3).

Doctor's House (Building #2), Constructed ca. 1867 - 1870:

This was the only residence which had a brick ground floor with a wood frame structure above. It has been said that the ground floor was used as the doctor's office and the upper floor and half as his residence.

Company supervisors' residences (Buildings #3, 4, 6, 7, 8, 9, 10, 11/12, 13, 14, 15, 16/17, 18, 19, 20/21, 22/23, 24, 25, 26, 27, 28, 29, 30/31, 32), constructed ca. 1867 - 1880):

According to Tom Friggens, "The homes of Fayette residents represent a mixture of simplicity and comfort in an era and locale which emphasized good taste in the immediately useful and practical. Supervisor's homes were of comfortable size, generally two stories in height, many with full cellars. Steep stairways led to small second-floor attics where children slept in partitioned rooms. While upper floor quarters may have been plastered and calcimined, the first floor parlor, bedroom, and dining areas were 'smartly papered' in contrast to lace window curtains and pull shades. Wood-stoves could be found in front rooms as well as in kitchens; stovepipes carried warm air to adjoining rooms through oval ducts. Storage or work sheds were added to the rear of many homes. Privies were conveniently located for household access, though not too close in proximity to the rear kitchen."[55] Most of the residences that were originally board and batten were later

Hotel (Building #100), constructed ca. 1867 - 1870 :

A chronological history of this building is contained in a recently completed report entitled, "The Hotel at Fayette Historic Townsite, Architectural Analysis and Preservation Plan" by Richard Frank, FAIA.

St. Peter the Fisherman's Catholic Church (Building #306), constructed ca. 1876:

This building was located approximately 1/2 mile south of townsite. Just a few years later, the church was destroyed by fire in 1879. It was rebuilt within a couple of years (records indicate at least by 1882), and a rectory was also constructed adjacent to it.

Boarding House (Building #5), constructed ca. 1870:

This structure was constructed to provide housing for single employees, in addition to that provided at the third floor dormitory of the hotel. The Boarding House was located near the residences of several company supervisors.

Hay Barn (Building #128), constructed ca. 1882:

Historic documentation indicates that construction supplies for this building were purchased in August and that there was "labor [undertaken] on the Hay Barn" in November of 1882. The hay barn was located east of the furnace, above the dolomite bluffs, somewhat away from the town center.

Jail (Building #131), constructed ca. 1876 - 1879:

The town had its own jail, which was located southeast of the furnace complex near the granaries. [show historic photo] Historic documentation indicates the appearance of this structure: "The jail was of shed type (shanty roof) construction and had 2x6's for window bars."[43] However, civil disobedience must have been unheard of at Fayette as the *Escanaba Iron Port* stated that, "The jail has never an inmate and never had."[44]

There were several other commercial structures constructed at Fayette that were unfortunately gone by the 1907 survey, so they don't have any numbers assigned to them. There is little or no photographic evidence of these structures. Historic documentation includes reference to such structures as a fire house (with its own fire engine) constructed ca. 1880. Also, "By the late 1870s farmers had voiced a need for the construction of a local grist mill. It was suggested that the furnace company build one on its land, and in 1879 George Barclay and W.M. Ruggles began construction on the shore bluff, half a mile north of Fayette. The mill rose two and one half stories, measured 30' x 40' and was powered by steam."[45] However, records dispute whether the grist mill was ever actually put into operation or just used as a barn. Although one newspaper article stated that, "Geo. Barclay and Wm. Ruggles 'have commenced the erection of a grist mill about a half a mile north from the furnace, on the shore. The mill... will be two and a half stories high, 30 x 40 feet... with an engine and boiler room on outside,"[46] another article stated that, "the frame which was got out by Barclay and Ruggles for a Grist Mill has been sold to the furnace company and will be used for a barn."[47]

Residential Buildings

There was a definite economic and social class structure at Fayette. In writing on the cultural aspects of Fayette, Tom Friggens wrote, "A class structure was most apparent in housing facilities; the single room log huts of common laborers did not equate with the comfortable salt-box residences of the furnace company elite."[48] It appears that several of the houses constructed at the west end of the town, for company supervisors, were constructed in the early years of Fayette.

Blacksmith Shop (Building #103), constructed ca. 1867 - 1869:

This was one of the workshops located within the town center that served both the furnace and the town, (Figure II-6). The building was wood frame. However, a fire destroyed it in 1871. Shortly thereafter it was rebuilt.

Carpenter's Shop (Building #105), constructed ca. 1869:

This building was also one of the workshops located within the town center that served both the furnace and the town, along with the Machine Shop (Building #104) and Blacksmith Shop (#103). A local newspaper article of 1871 stated that, "[The] Company [is] putting up [a] building - lower story for tool house, upper to be 'finished off' suitable for a photographic gallery to be run by E.H. Boehme of the New York Gallery of this village - who is acknowledged by all who have seen his work to be at the head of his profession."[38] Although it is not known for sure, this description may be referring to the Carpenter's Shop.

Town Hall (Building #101), constructed ca. 1869 - 1871:

The early history of the town hall at Fayette is vague, and historic documentation regarding it is confusing, however, an extensive amount of the historic documentation refers to the presence of such a facility at Fayette from 1869 on. The location, appearance, and reconstruction / alterations of the original building are unclear. Early references suggest that the original town hall may not be the same building that exists at the site today. Although there is some uncertainty as to when this structure was actually built, there is extensive historic documentation indicating its several uses during the later parts of this episode.

Early historic documentation states that in 1871, prior to the construction of the Catholic church south of the townsite, that, "Services were held in the new hall on Sunday by the Catholic denomination."[39] The divided spaces of the first floor were rented to local businesses. There was the doctor's office and associated apothecary, and a few years later a butcher shop. The Jackson Iron Company's cash books have records showing tenants paying rent for space in the town hall as early as 1879. The most noted tenant was the butcher. "A company-owned meat market was leased to George Harris in 1878. The business included a slaughter house, butcher barn, sausage shop and one half of the ice house."[40] The company also gave Mr. Harris pasture to raise his cattle on, and made an agreement to allow no business competition on company land.

The *Escanaba Iron Port* reported in October of 1879 that the "The last dance [will be] in the Town Hall Friday night."[41] This statement suggests that a closing down of the building was planned (rather than due to a disaster such as fire), and based on later documents, it appears that this closing was due to its reconstruction. There are several historic documents suggesting that the [new] town hall was constructed ca. 1881. Such documents include a record in the Jackson Iron Company's cash book of Dec. 5, 1881 for payment to one N. Thill for the lathing and plastering of the new hall, and a local newspaper stated that, "The walls of the new hall are rising rapidly. The carpenters will soon begin to take [the] place of the masons."[42] Historic documentation referring to later alterations at the building include: repairs to the "Music Hall" in 1882 and the installation of a hardwood floor at the second floor in 1888.

Ice House (Building #133), constructed ca. 1867 - 1879:

The earliest written record of this building is a contract between G. Harris (the butcher) and the Jackson Iron Company for use of the ice house in 1878. However, it is assumed that the structure was constructed much earlier than that due to its essential role in the town.

room 40' x 60' and well adapted to that purpose."[31] Later articles referred to the third floor space as a dancing hall.

Post Office, established ca. 1867:

Based on historic documentation, the post office was one of the first official establishments at Fayette. The town applied for its name in 1867, enabling it to establish a post office and thus begin communication with those outside of the Garden Peninsula. However, the Escanaba Tribune, in September of 1870, suggests that it was not until this year that a post office was officially established at Fayette. It stated that: "It has been decided to establish a P.O. at this point, with Mr. Pinchin the storekeeper as master. It will be called the 'Fayette Post Office' and will undoubtedly do a large business."[32] It is hard to believe that they didn't have their own post office and get mail for the three years of operation with three hundred people living there.

However, historic documentation suggests that the post office was probably not housed within its own structure, but within the Company Store (Building #102A). One newspaper article stated that, "Harry Pinchin's store - the post office has been nicely fitted up, new shelves, painted, etc. and looks better."[33] However, another stated that, "Uncle Sam has authorized the postmaster to enlarge office accommodations."[34] And a newspaper advertisement in the Escanaba paper stated: "H.S. Pinchin, DEALER in cigars, Stationery, and Albums. Temperance Beverages of all Kinds AT THE POST OFFICE FAYETTE, MICHIGAN." A historic photograph ca. 1920s shows a sign over the south entrance into the store stating "Post Office," while a later photograph (Figure III-26), taken ca. 1920s, indicates a sign for the post office on the east side of the Town Hall (Building #101). Furthermore, another photograph (Figure III-27), taken ca. 1930s, indicates that the post office again changed locations and there is a sign on the east side of the Hotel (Building #100).

Company Office (Building #108), constructed ca. 1870 - 1872:

This important administration building, occupied by the office of the superintendent, the paymaster, and clerks, was located in the town center. It was a wood frame structure with a dolomite foundation. Historic documentation indicates that its interior was lavishly decorated, symbolizing the wealth of the company. Alongside the building to the south, was the pit scale used to weigh pig iron for sale.

Barber Shop, constructed ca. 1870 -1872:

The town's barber shop was a small wood frame building constructed just south of the Company Office (Building #108). Historic photographs indicate that this building was board and batten.

Sawmill (Building #135), constructed ca. 1869:

Although it is more than likely that temporary facilities for the lumbering of wood existed prior to the construction of any other structures, the permanent sawmill was not constructed at the north end of the peninsula until 1869. A newspaper article of that year stated that, "A new sawmill of wood, 19 x 90 ft. has just been finished. Across [the] harbor from [the] furnace, is furnished with new style of machinery, from Salem, OH... Basement part will be used for a wagon shop and for preparing the material for building scows."[35] The sawmill lasted only a couple of years before being destroyed by fire in 1871. The *Mining Journal* reported the destruction in November of that year, stating that, "the sawmill burned in October; [and] only [a] boiler and engine [were] saved."[36] However, the destruction was only a short setback, and, as the *Escanaba Tribune* reported, by April of the next year, it had been reconstructed and the, "New sawmill [was] larger than [the] one that burned last fall."[37]

entrepreneurial spirit to it. "Pig iron was the most important, though not the sole export of the Jackson Iron Company. Large quantities of telegraph poles were cut during slack production periods and hauled from woods to docks for shipment abroad. Nor was crude ore the single import, as the furnace town depended upon shipping to stock its stores. General supplies, machinery, grain and brick were listed among incoming cargoes. Warehouses stood on the docks and a grain elevator was located nearby."[26] The region's newspapers constantly noted the continuous growth of the furnace town.

Historic documentation chronicles the history of several of the structures at Fayette during Fayette's operation from 1867 - 1891. These structures are listed below:

Machine Shop (Building #104), constructed ca. 1867:

The machine shop played a vital role both in the operation of the furnace and of the town. As such, it was one of the initial buildings constructed. The equipment it housed was required to facilitate the continuous repairs of the furnace equipment. One of the unique characteristics of this building is that it is entirely constructed out of dolomite (said to be "fireproof"), whereas most of the buildings in the town had only dolomite foundations and were wood frame construction.

Barns and Livery (several buildings) constructed ca. 1867, etc.:

The barns at Fayette were essential to both its industrial and commercial operations. The first large stock barn (Building #129) was apparently constructed by 1869, (presumably in 1867). A document dated August 21, 1867 in the state archives is an agreement to build a frame barn at the Jackson Iron Furnace at Fayette. The *Mining Journal* of November 1869 states that the there was a "barn forty by one hundred and thirty feet," which was one of the permanent buildings at Fayette.[27] Apparently, the building was two-stories with stock (horses) sheltered on the first floor, and feed kept on second floor, which also contained an 11' x 30' granary.

Historic documentation also states that, "Services on 'Main Street' included liveries." Newspapers of the time state that a man by the name of Ouderkirk ran a livery stable, which was constructed in 1887. There are references to liveries run by other men such as an undated newspaper advertisement which stated, "J.H. Harris, Proprietor of, The Fayette Livery. The only livery in Fayette. Fancy rigs at all times at moderate prices. Commercial Men's Patronage expecially [sic] solicited, and satisfaction guaranteed. Fayette, Mich."[28] Unfortunately, no physical evidence of these structures remains today.

Company Store (Building #102A), constructed ca. 1867 - 1869, rebuilt in 1886:

Historic documentation indicates that a company store provided essential domestic items to the employees and residents of Fayette by at least 1869 (in actuality this building was probably one of the first that was constructed in the town center, following the machine shop in 1867). The original store is assumed to have been a wood frame structure with a dolomite foundation, similar to the majority of the town's other commercial buildings. Historic documentation indicates that the store was lengthened 16', received new counters and shelving, was repainted, and was "fitted out with a glass front on [the] South end which makes it look somewhat cityfied [sic]" in 1872.[29] The original wood-frame store was destroyed by fire in 1886. Following this fire, it was reconstructed out of dolomite alongside the newer (adjacent) dolomite warehouse (Bldg. #102B).

Company Warehouse (Building #102B), constructed ca. 1870:

In July of 1870, the Escanaba Tribune described the construction of this building. It stated that, "They are now building, in close communication with the store, a Fire Proof warehouse 50 x 60 feet two stories in height..."[30] A few months later the paper stated that the, "upper [third] story [is] to be used as a public hall

kilns were constructed possibly as early as 1867.) However, by the mid-1870s, these kilns were replaced with eleven conical kilns, (similar to the ruins left today), which were considered more efficient, produced better quality charcoal, and were easier to operate than the earlier rectangular ones.[17] It is suspected that the brick used to construct these kilns was imported as ballast on schooners traveling to Fayette from the Chicago area."[18] Historic photographs indicate that shortly after they were built, wood frame walking platforms were constructed over the kilns to facilitate easier loading and operation from the hill above. (Figures II-2 and II-4)

The production of charcoal for the Fayette furnaces was a major part of the company's work. The outlying charcoal kilns, far from the commercial center of Fayette were also instrumental in the success and production of Fayette. "As it was necessary for colliers to live and work at their kiln sites, miniature villages sprouted at each location, and enjoyed a quasi-independence from the company town. Cabins were built to house laborers; barns, livery stables and carpenter shops were necessary to support the labor. Henry J. Bebeau secured company permission to open a general store at the Section Nine Kilns, agreeing to stock it from the company store at Fayette. Buildings were occupied without charge to tenants, providing they were kept in good repair. Hamlets were governed by the same general rules that governed Fayette..."[19]

Throughout Fayette's operation, kilns were constantly being added, and older kilns were reconstructed when they fell into disrepair. By 1873, fifty-seven kilns were in use at nine locations within ten miles of Fayette. "The last major kiln-building projects were undertaken in 1875 and 1876, when ovens were constructed north of Fayette. Thereafter, some historic research has stated that the furnace management seems to have kept the number of operational kilns around sixty, with the greatest number reported in 1883, when agent John Kitchen told the Charcoal Workers' Association that he had a total of sixty-eight."[20] However, other documents suggest that by the mid-1880s, there were more than eighty kilns in operation.[21]

Docks:

Another essential element that contributed to the efficiency and productivity of Fayette was its ideal harbor location. Within its first year of operation, 900 lineal feet of docks were constructed along the edge of the Snail Shell Harbor to facilitate both the arrival of raw ore and the departure of smelted pig iron. "The loading docks were constructed on pilings in water depths ranging from four to thirty feet."[22] The docks played an essential role in the smooth operation of the furnaces, as can be seen in a document regarding a disruption due to an accident. It stated that, "A serious accident resulted in considerable property loss when a section of the dock collapsed in 1874. Although much portable machinery was rescued, 2,000 tons of ore were lost in the harbor, and dredging operations were necessary before the dock could be repaired."[23]

Lime Kiln (Building #125), constructed ca. 1867:

It has been assumed that the lime kiln was one of the first structures built at Fayette due to its vital role in the construction of the town's other structures. However, one historic document states that it was not until several years after Fayette was in operation that the kiln was constructed. The regional newspaper stated that in 1882, "The company will soon build a Lime kiln, and begin to manufacture Lime."[24]

Commercial and Recreational Structures

A significant portion of the town was constructed, and occupied, months before the time the furnace itself went into operation, including several commercial structures in the town center and living quarters for nearly 300 people. The growth of the town paralleled the rise of the company business. New buildings were constructed as the need arose, and older buildings underwent alterations and repairs as needed.

Although the Fayette "business district" was limited, its services were not. By 1880, the locality had developed into a "splendid rural district with evidences of thrift and enterprise everywhere apparent."[25] Fayette had an

year (1870), sheds were built over the stockpiles of ore and charcoal to protect them from the detrimental effects of the weather.[9] Figure II-2 shows the furnace complex following the construction of the second stack and the sheds along the dock.

The two blast furnaces at Fayette underwent extensive alterations at least twice, once during a planned renovation in 1881, and again in 1883, following a serious fire. The major renovation of 1881 required that both of the stacks be blown out for several months, during which time they were enlarged to a height of 54 feet and bosh (inside diameter near the hearth) of 10 1/2 feet. The mark of the exterior alteration can be seen quite clearly on the stacks; the upper (newer) portion has neither wood nor brick bracing and was constructed using smaller pieces of dolomite.

Additionally, new hot blast ovens were constructed, and bell and hopper loading devices were installed in their [the furnaces'] throats.[10] These alterations were the result of a realization that the Jackson Iron Company's fuel supply was expendable, and not limitless. The company was concerned with the Garden Peninsula's supply of hardwoods for charcoal production, and thus began experimenting with softwoods extensively by 1880. In "May 1880, it was reported that three-fourths of the fuel currently being used at the furnace came from softwood. This experimentation with softwood charcoal eventually led to the renovations of 1881, (described above), which included enlarging the stacks and the installation of bell and hopper closures."[11] By "enabling its blast furnaces to run regularly on soft coal, the Jackson Iron Company was stretching its hardwood fuel supply; by enlarging the stacks it was also insuring that it would consume charcoal at a faster rate than previously. Thus the effect of the alterations was probably to allow greater short term production, rather than to extend the length of time the fuel supply would last."[12]

The alterations to the furnace in 1883 were not planned, but the result of a major fire. Although, "A determined local effort prevented the blaze from spreading beyond the store and the blacksmith shop," the furnace complex itself was almost totally destroyed.[13] Several elements of the furnace had to be completely reconstructed.

Unfortunately, the alterations of 1881 [and subsequent reconstruction of 1883] were the last successful attempts to extend the fuel supply at Fayette. "By the 1880s, the supply of wood on the Jackson Company's land was dwindling, and transportation to further areas of standing timber became more and more difficult. "Indeed, the furnace was banked due to a lack of fuel 'several times' during the winter of 1886-87, the first time that a coal shortage had occurred since 1873. Transportation considerations may have been the reason for the renewed production of pit coal [bought from private colliers] during the furnace's final years of operation."[14] By the late 1880s, several schemes were devised to gain hardwood supplies. These schemes included negotiations with commercial rail lines for transportation of hardwood from throughout the Upper Peninsula, and the company's consideration of laying its own new narrow gauge line to outlying areas. However, "All of the schemes suggested for gaining access to new fuel supplies required substantial capital investment. For a variety of reasons, the decision was made not to follow through on any of these plans. With its fuel supply thus circumscribed, Fayette's days of blast furnace operation were clearly numbered."[15]

Kilns:

Charcoal kilns, which produced the main fuel for the furnaces, were an essential element of the industrial operation of Fayette. Historic documentation indicates that during the early period of the furnace operation, charcoal was purchased from local pit colliers. However, "The production of pit charcoal was inefficient and wasteful. When the second furnace stack was put into operation in 1870, it became evident that a greater quantity of fuel must be [had to be] produced. To remedy this problem, eleven brick charcoal kilns were constructed along the harbor near the furnaces, and nineteen others were located within seven miles to the south."[16] Based on historic documentation, the original kilns constructed to the east of the furnace were rectangular, and were constructed at least by 1870. (Some historic documents suggest that several of these

Fayette was a booming and prosperous town by the mid-1870s. There were approximately 300 employees with over 500 residents in and around the town. In addition to the seemingly continuous construction of new buildings, alterations, additions, and necessary repairs were ongoing at the town's existing structures.

All of the wood frame buildings, both commercial and residential, were balloon frame construction. The wood used for these structures was cut on land owned by the Jackson Iron Company and brought to the Fayette sawmill where it was sawn into lumber. Historic photographs indicate that most, if not all, of these buildings had a monochromatic paint scheme. Because the photographic documentation is black and white, the exact color of the structures cannot be determined without a paint analysis. However, historic precedent suggests that the light color seen in photographs was most likely an off-white or light gray lead-based oil paint.

Industrial Buildings

Furnace (Building #114):

Construction of the first blast furnace, the essential structure at Fayette, began in February of 1867 and was completed by December of the same year. The first day of its operation was Christmas Day of that year. The furnace stack was a truncated pyramid shape and built of heavy timber framing and dolomite quarried from the adjacent dolomite bluffs. The stack was forty feet high and thirty square, and following the usual procedure of the time, was lined with fire brick. Figure II-1 shows a view of the furnace complex shortly following its construction and the beginning of its operation.

Although Fayette was unique in several ways with respect to its operation, its furnaces were traditional in both their shape and their masonry construction. According to Maria Quinlan:

> The earliest blast furnaces built in America, aside from being smaller, did not look much different from Fayette's stacks. Other furnaces in the Upper Peninsula even more closely resembled Jackson. The overwhelming majority of charcoal blast furnaces constructed in Upper Michigan before 1875 were masonry. Several, including the three at which founder Joseph Harris had formerly been employed, were timber-framed. The Fayette stacks' forty foot height made them almost exactly average in that category among charcoal furnaces erected nationwide during the years from 1865 to 1870. They fell near the bottom, however, of a listing by height of Michigan furnaces, although many Upper Peninsula stacks were not actually significantly taller."[7]

Historic documentation indicates that at the June 1869 directors' meeting of the Jackson Iron Company, the directors, in addition to purchasing additional land for its timber resources, "...authorized [the] construction of [a] second stack, thus completing the original plan for Fayette."[8] This statement suggests that the construction and operation of two furnaces, rather than the standard of having only one, was a goal of the Jackson Iron Company from the beginning.

Construction of the second stack began shortly thereafter. It was identical to and was located approximately fourteen feet west of the original stack. The new furnace began operation on May 28, 1870. The addition of this second stack quickly doubled the production of pig iron at Fayette. However, the reasoning behind the construction of the second furnace was not only to increase overall production. One of the main reasons for constructing two stacks at the furnace location was to make production more nearly continuous. A stack often had to be "blown out" periodically for cleaning and maintenance. The replacement of the furnace hearth was the most common reason for a temporary shutdown, and relining the stacks with fire bricks (which was required every couple of years) involved the longest period of shutdown time. With two stacks, the stacks could alternate operation and shutdown periods, with less likelihood of the company spending long periods in unprofitable idleness.

The construction of the second blast furnace led to other physical changes at Fayette. The importance of protecting the large amount of fragile charcoal stored on the docks near the furnaces, was realized. That same

EPISODE II: 1867 - 1891

The Period of Significance that has been determined by the Fayette State Historic Park to serve as the time of interpretation of several of the townsite's features (with some deviation) encompasses this episode of time in Fayette's history. This period incorporates the time in which Fayette actually functioned as an operational furnace complex. In terms of the productivity of the furnace complex, Maria Quinlan has further subdivided this period. She states that, "The life span of Fayette seems to divide itself into four periods: a time of steadily increasing production from the furnace's beginning through 1875, a drop-off in production in the late 1870s, a period of change and some uncertainty in the early 1880s, and finally the years of decline from 1885 to 1890."[1] There were continuous physical changes during this entire episode, but 1870 was the year of the town's biggest change that affected its productivity and, therefore, its economy: the addition of a second blast furnace.

By September of 1867, Fayette was already quite a busy place, with the company employing close to 200 men. Although the furnace was not to be in operation for a few more months, construction of the town was in full swing, with all of the 200 employees presumably involved in its construction. This was just the beginning of the Jackson Iron Company's prosperity on the Garden Peninsula, and "during its prosperous years, virtually no one in the surrounding countryside, let alone in Fayette itself, was economically independent of the company."[2] By 1870, just two years after its establishment, there were 68 buildings at Fayette.

Fayette was not without its downfalls, however. The difficulty and time involved in the production of charcoal often created fuel shortages at the furnaces. Additionally, in 1885, the continuing depression in the iron market caused the furnace to be shut down for ten months. This was the first time a temporary shutdown was the result of the national economy, however. It was the fuel shortages, which steadily increased, that concerned the company the most, as "the Jackson Iron Company had not planned for such rapid expenditure of its fuel reserves [as happened], and by the mid-1880s, other considerations, combined with the expense of taking steps to gain access to large new tracts of woodland, put such a move out of the question." [3] The company "did what it could, using all the wood it could reasonably get at, renewing the use of pit charcoal, experimenting with sawmill refuse. Eventually these expedients were exhausted, however, and when the colliers' contracts for operation of the company kilns expired in December, 1890, they were not renewed."[4]

Construction and Alterations of Buildings

While the furnace complex was the heart of Fayette, the buildings and workshops located in the town center were an important artery of Fayette which provided administration, maintenance, and other essential functions to the furnace and the town, (Figure II-6).[5] Construction of several of these buildings had begun in February of 1867 and continued for ten months prior to the beginning of operation of the furnace.

Fayette became economically independent in several ways. From "its busy workshops the Jackson Iron Company maintained the operations of its furnaces, and the economic independence of Fayette. Tools and parts were manufactured, repaired and replaced; finished lumber was provided, limestone [dolomite] blocks were quarried, wheeled barrows, wagons and scows were constructed."[6] Later alterations of buildings throughout the town followed in this independent approach. Company masons would do the repair work throughout town. Wood for construction would most often come from the company's carpenter shop, and the carpenters would provide building maintenance. At times, when it was inefficient or unfeasible to carry out labor "in-house," the materials would still be provided by the company, but private contracts for labor would be undertaken. Historic documentation exists from several of these private contracts between the company and outsiders, including work for the construction of: four dwellings in 1867, a stock barn in 1867, a coal shed in 1870, a warehouse on the dock in 1882, and alterations to the company store in 1886.

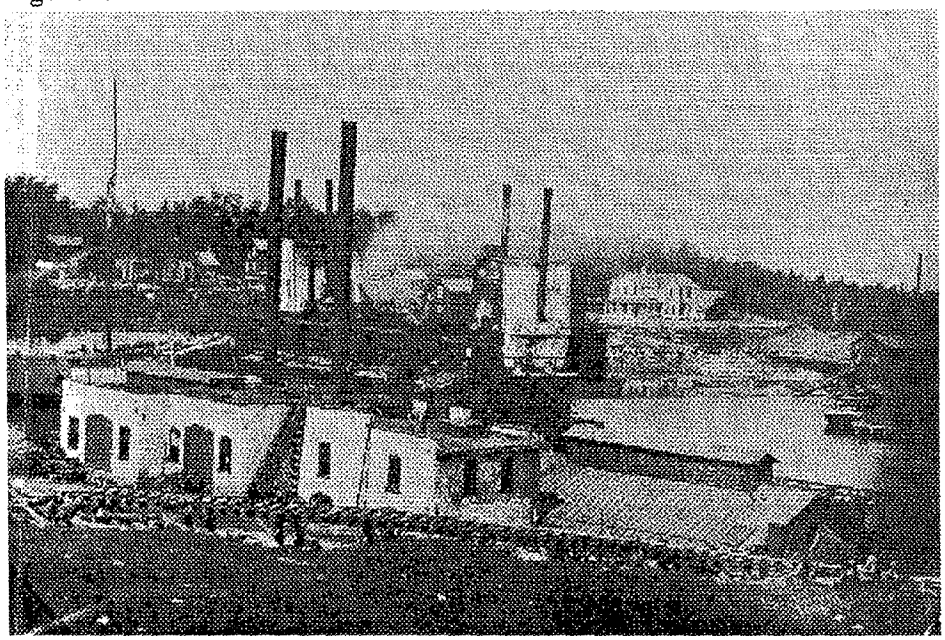
the southern terminus of the new Peninsula railroad which was a direct connection with Jackson's mine at Negaunee. Historic documentation indicates that this superb report led to the purchase of Squires' property.

The Jackson Iron Company purchased an additional 10,500 acres of the Garden Peninsula in 1866.[13] Presumably, this purchase was done to add to the company's potential fuel supply derived from the hardwood forests of the land.

Episode I Endnotes:

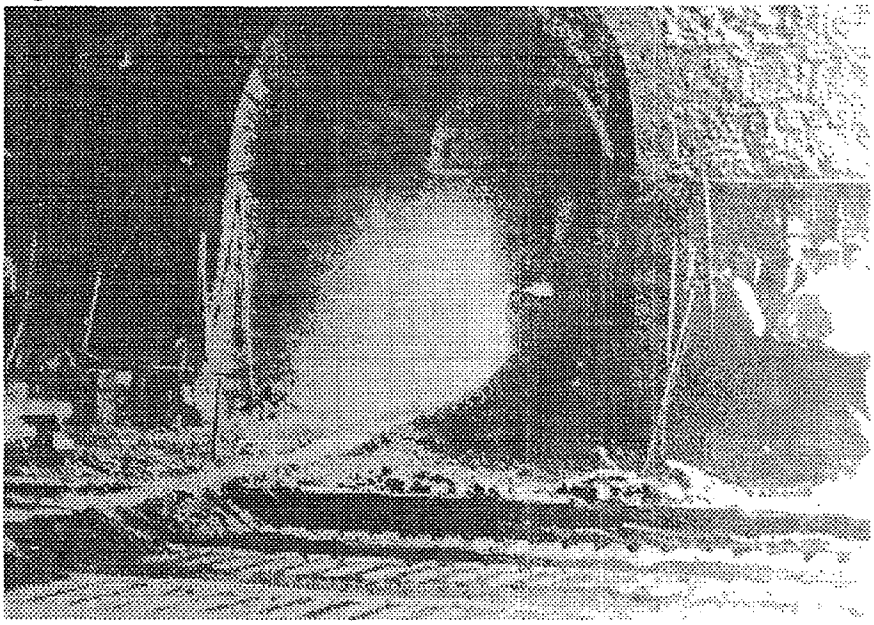
[1] Comer et. al. "Michigan's Native Landscape," p. 53
[2] Comer et. al. "Michigan's Presettlement Vegetation," p. 4
[3] Comer et. al. "Michigan's Native Landscape," p. 53
[4] Michigan History, April 1928, p. 389.
[5] Jackson Iron Company, Report, p. 8
[6] Langille, p. 12
[7] Langille, p. 31
[8] Jackson Iron Company, Report, p. 8
[9] Jackson Iron Company, Report, p. 8
[10] Jackson Iron Company, Report, p. 8
[11] Langille, 14-15
[12] Friggens, 4.
[13] Friggens, 4.

Figure II-7



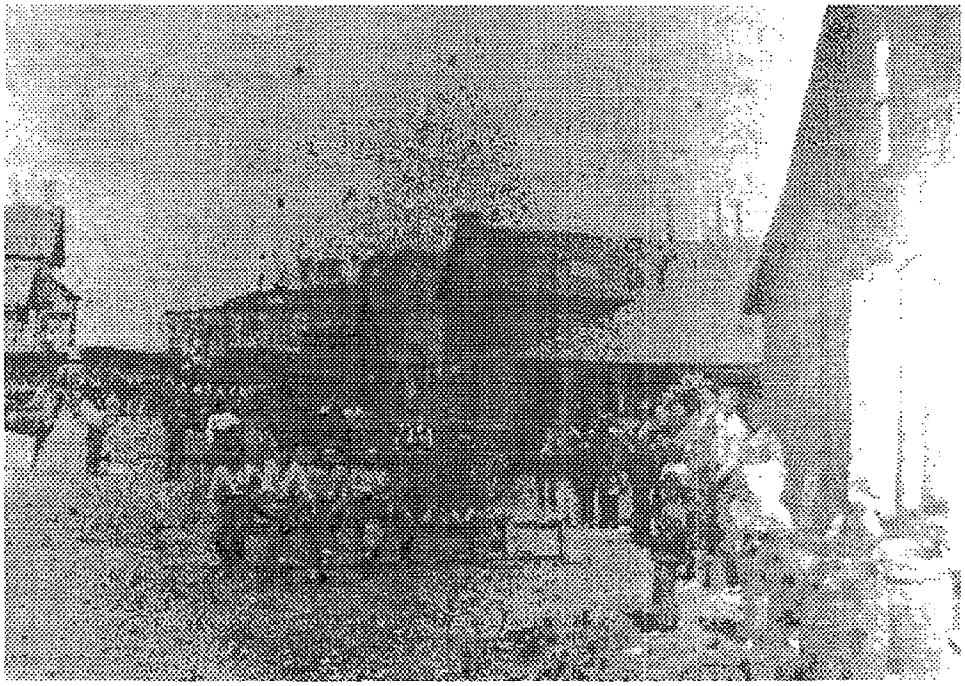
View looking northwest from Furnace Hill with the Furnace Complex in the foreground and the structures on the peninsula seen in the background.
Note: Several of the Supervisor's Residences appear to have walls that are painted a dark color with windows that are a bright, lighter color.
Date: Ca. 1875 - 1881

Figure II-5



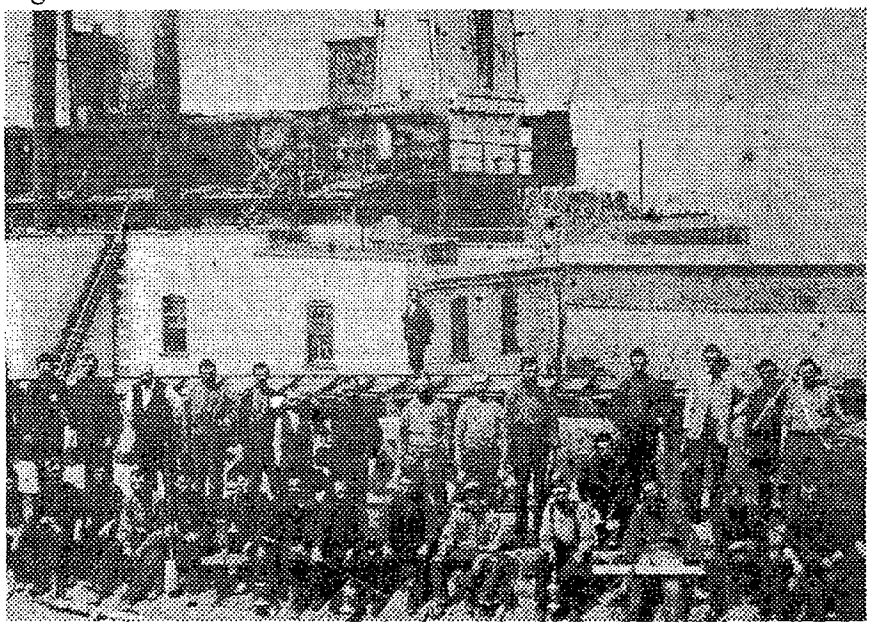
View of the interior of a casting room with molten iron flowing out of the furnace. Although this photograph is of the East Munising Furnace, the layout of the space is similar to that seen at Fayette. Note: The mold forms (pigs) set in the sand floor can be seen.
Date: 1870

Figure II-6



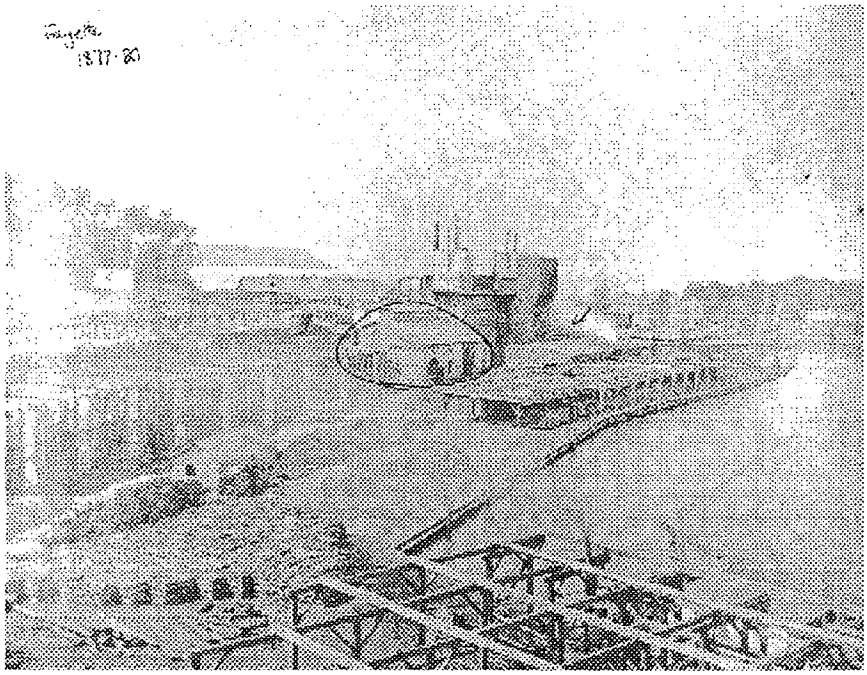
View looking north in the town center; all of the workshops (including the Machine Shop #104, the Blacksmith Shop #103, and the Carpenter Shop #105) are located at the right of the photo, along the open area of the town center.
Date: 1870 - 1891

Figure II-3



View of the rear (south) of the furnace complex; workers are standing along the railroad tracks.
Date: ca. 1867 - 1881

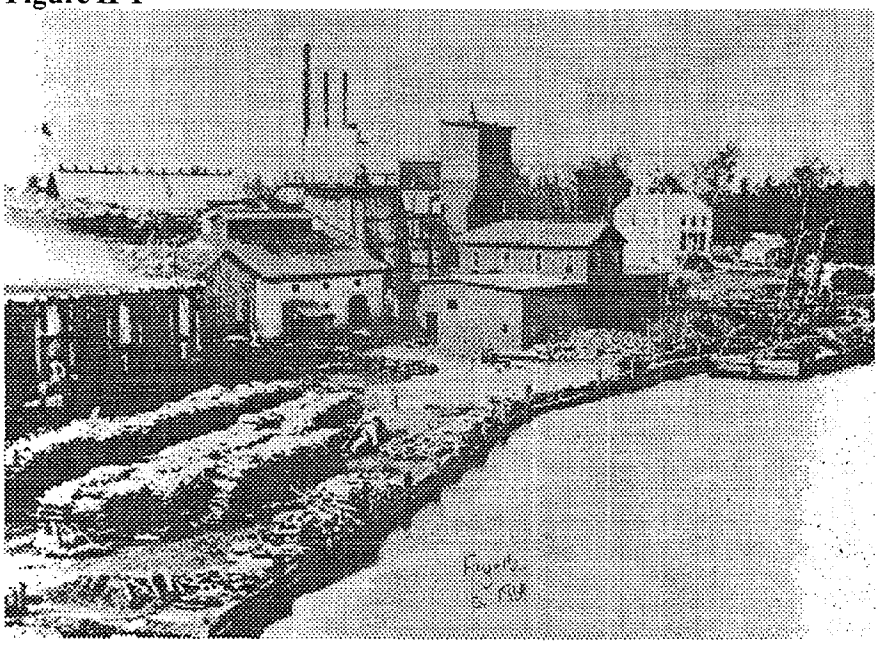
Figure II-4



View looking southwest across Snail Shell Harbor at the furnace complex.(Similar to II-2)
Note: Cribbing (walkways) have been constructed over the charcoal kilns; Can see a train car alongside the original wood-framed Company Store (now Bldg. #102); is there a sign on the north elevation of the Town Hall?; there are two furnace stacks but it appears to be prior to the 1881 alterations; the docks sheds are constructed for the stored charcoal.
Date: ca. 1877 - 1880

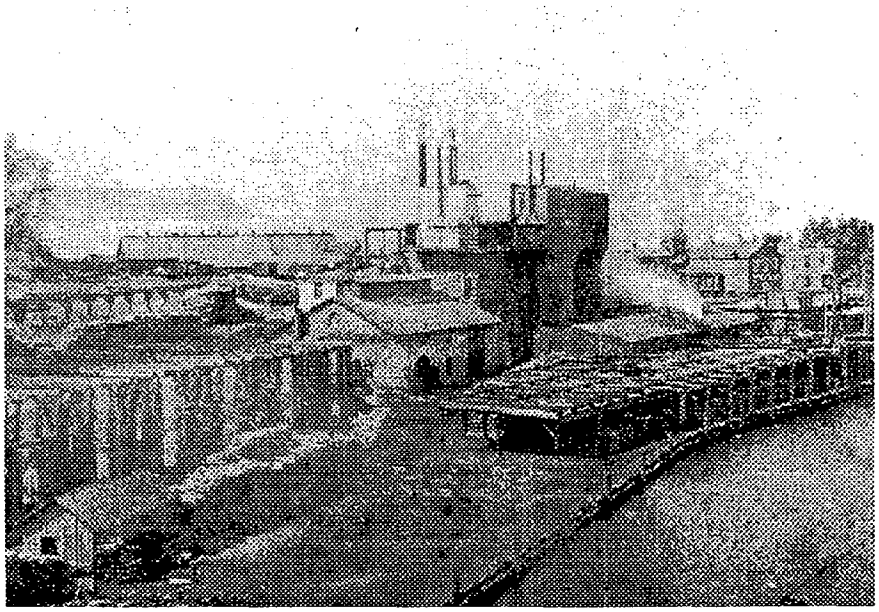
Photographic Chronology of Episode II

Figure II-1



View looking southwest toward the furnace complex, shortly following its construction.
Note: There is only one furnace stack; no sheds have been constructed at the docks yet.
Date: ca. 1867 - 1870

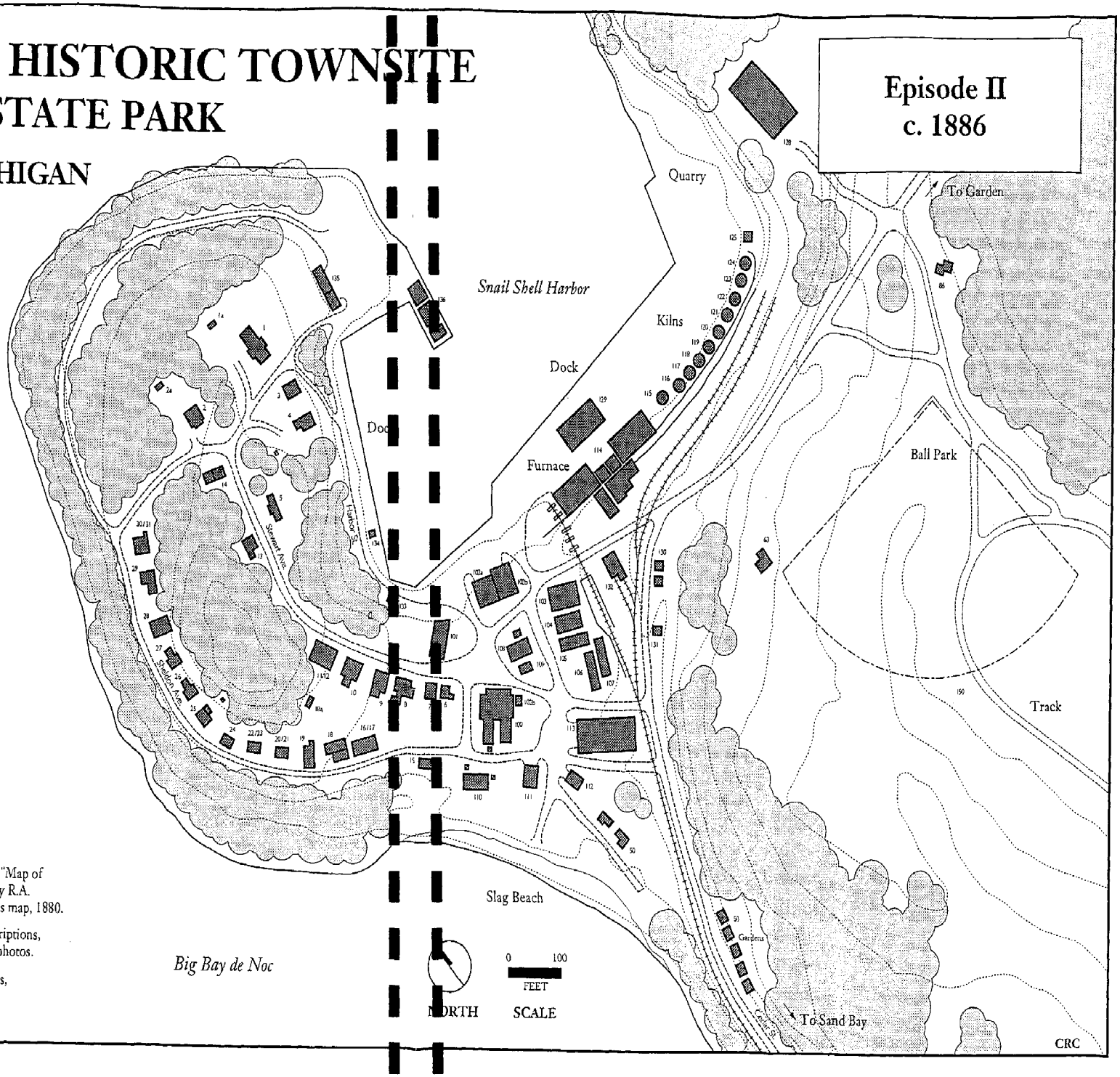
Figure II-2



Similiar view to Figure II-1 (appears to be a detail of Figure II-4), following the construction of the second furnace stack.
Note: Sheds have been built at the docks; the second furnace stack is present; the train trestle can be see in the left background.
Date: ca. 1870 - 1886

FAYETTE HISTORIC TOWNSITE
FAYETTE STATE PARK
GARDEN, MICHIGAN

Episode II
c. 1886



Structures
Extant building

Circulation
Road
Path
Rail

Vegetation
Extent of vegetation

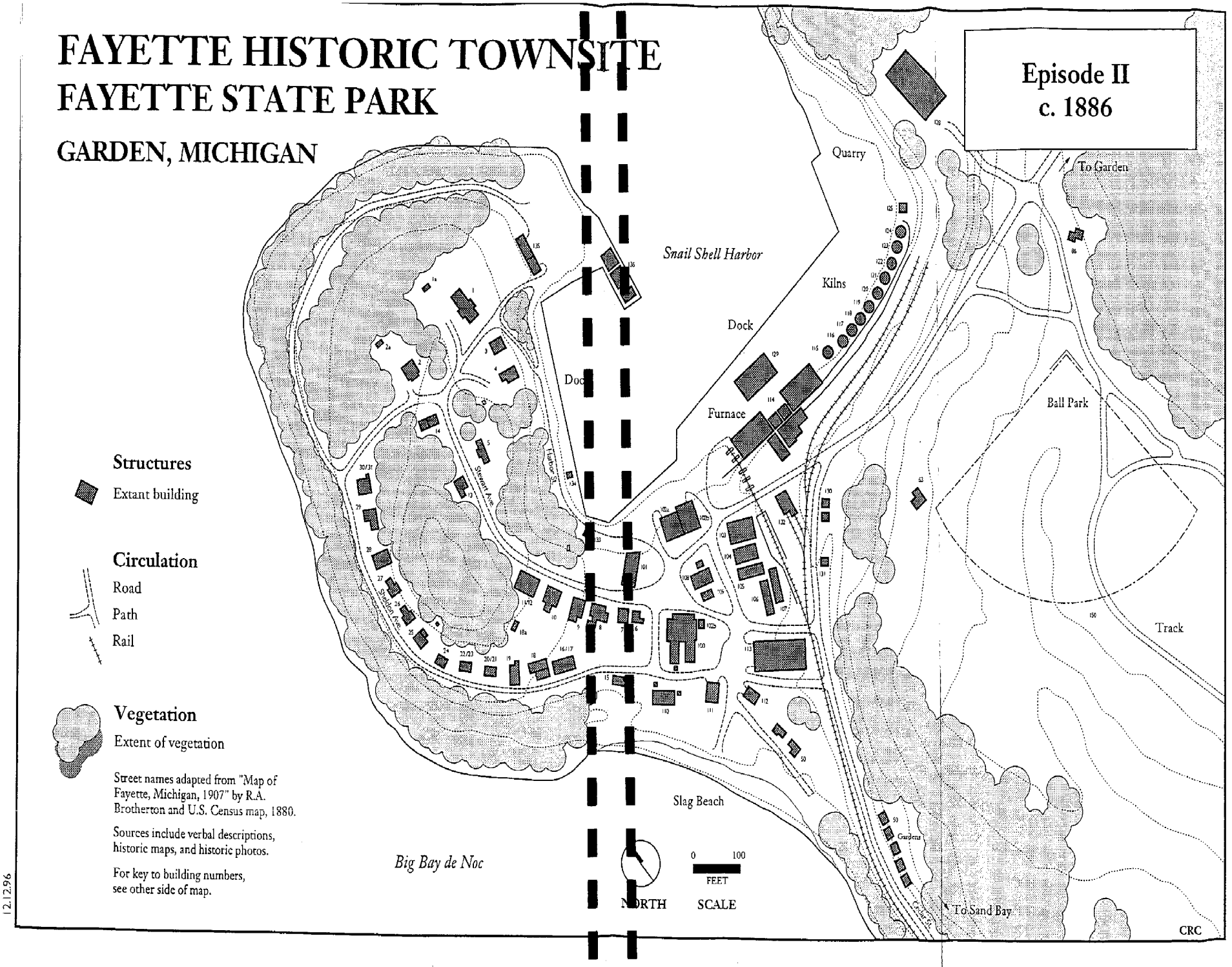
Street names adapted from "Map of Fayette, Michigan, 1907" by R.A. Brotherton and U.S. Census map, 1880.

Sources include verbal descriptions, historic maps, and historic photos.

For key to building numbers, see other side of map.

12.12.96

FAYETTE HISTORIC TOWNSITE
FAYETTE STATE PARK
GARDEN, MICHIGAN



Structures
Extant building

Circulation
Road
Path
Rail

Vegetation
Extent of vegetation

Street names adapted from "Map of Fayette, Michigan, 1907" by R.A. Brotherton and U.S. Census map, 1880.

Sources include verbal descriptions, historic maps, and historic photos.

For key to building numbers, see other side of map.

12.12.96

[37] Thomas G. Friggens. "Historic Structure File: *Escanaba Tribune, 4-20-1872.*" Compiled for the Fayette State Historic Park. (Fayette, MI: undated).
[38] Thomas G. Friggens. "Historic Structure File: *Escanaba Tribune, 9-23-1871.*" Compiled for the Fayette State Historic Park. (Fayette, MI: undated).
[39] Thomas G. Friggens. "Historic Structure File: *Escanaba Tribune, 4-1-1871.*" Compiled for the Fayette State Historic Park. (Fayette, MI: undated).
[40] Friggens, 44.
[41] Thomas G. Friggens. "Historic Structure File: *Escanaba Iron Port, 10-4-1879.*" Compiled for the Fayette State Historic Park. (Fayette, MI: undated).
[42] Thomas G. Friggens. "Historic Structure File: *Schoolcraft County Pioneer, 6-16-1881.*" Compiled for the Fayette State Historic Park. (Fayette, MI: undated).
[43] Thomas G. Friggens. "Historic Structure File: *Leon DeVet Interview 7-6-1961.*" Compiled for the Fayette State Historic Park. (Fayette, MI: undated).
[44] Thomas G. Friggens. "Historic Structure File: *Escanaba Iron Port, 10-4-1879.*" Compiled for the Fayette State Historic Park. (Fayette, MI: undated).
[45] Friggens, 49.
[46] Thomas G. Friggens. "Historic Structure File: *Escanaba Iron Port, 7-5-1879.*" Compiled for the Fayette State Historic Park. (Fayette, MI: undated).
[47] Thomas G. Friggens. "Historic Structure File: *Escanaba Iron Port, 10-11-1879.*" Compiled for the Fayette State Historic Park. (Fayette, MI: undated).
[48] Friggens, 39.
[49] Thomas G. Friggens. "Historic Structure File: *?.*" Compiled for the Fayette State Historic Park. (Fayette, MI: undated).
[50] Thomas G. Friggens. "Historic Structure File: *Mining Journal, 11-6-1869.*" Compiled for the Fayette State Historic Park. (Fayette, MI: undated).
[51] Tom Friggens, 14.
[52] Thomas G. Friggens. "Historic Structure File: *Mining Journal, 11-6-1869.*" Compiled for the Fayette State Historic Park. (Fayette, MI: undated).
[53] National Heritage Corporation. *Restoration and Stabilization Recommendations for Historic Fayette Townsite.* Prepared for the Michigan Department of State, History Division. (West Chester, PA: 1974), ?.
[54] Thomas G. Friggens. "Historic Structure File: *Mining Journal, 5-29-1880.*" Compiled for the Fayette State Historic Park. (Fayette, MI: undated).
[55] Friggens, 63.
[56] Thomas G. Friggens. "Historic Structure File: *Escanaba Tribune, 4-20-1872.*" Compiled for the Fayette State Historic Park. (Fayette, MI: undated).
[57] Thomas G. Friggens. "Historic Structure File: *Escanaba Tribune, 7-2-1870.*" Compiled for the Fayette State Historic Park. (Fayette, MI: undated).
[58] Thomas G. Friggens. "Historic Structure File: *Escanaba Iron Port, 8-28-1880.*" Compiled for the Fayette State Historic Park. (Fayette, MI: undated).
[59] Thomas G. Friggens. "Historic Structure File *Lake Superior Mining and Mfg. News, 9-28-1867.*" Compiled for the Fayette State Historic Park. (Fayette, MI: undated).
[60] Fayette "Slide Program"
[61] Friggens, 12.
[62] "Comments on Draft Fayette CRMP." Prepared for the Michigan Department of State by the State Historic Preservation Office, Michigan Historical Center, 1996.
[63] Friggens, 13.
[64] Friggens, 64.
[65] Friggens, 47.
[66] Archaeological Research Services, "Archaeological Research Planning at Fayette and Fort Wilkins State Parks, Michigan," p. 43.
[67] John R. Halsey and Dean L. Anderson, memo to Jim Hooker, Randy Brown, Sandra Clark, Bette Hulbert, and Scott Brooks-Miller regarding archaeological test excavations at Fayette, 7/22-23/96.
[68] Friggens, p. 35
[69] John Halsey memo to Martha Bigelow, Ruby Rogers, and Thomas Friggens regarding archaeological testing and reconnaissance at Fayette State Historic Park, May 1988.
[70] Friggens, p. 13
[71] Friggens, p. 64
[72] Friggens, p. 53
[73] John Halsey and Barbara Mead, memo to M. Bigelow, R. Rogers, J. Schultz, K. Eckert, and T. Friggens, 5-14-86.
[74] Friggens, p. 70
[75] Friggens, p. 70
[76] Friggens, p. 62
[77] Clint Dunathan, p. 205
[78] *Michigan History*, December 1951, p. 506
[79] Friggens, p. 49
[80] Friggens, 6.

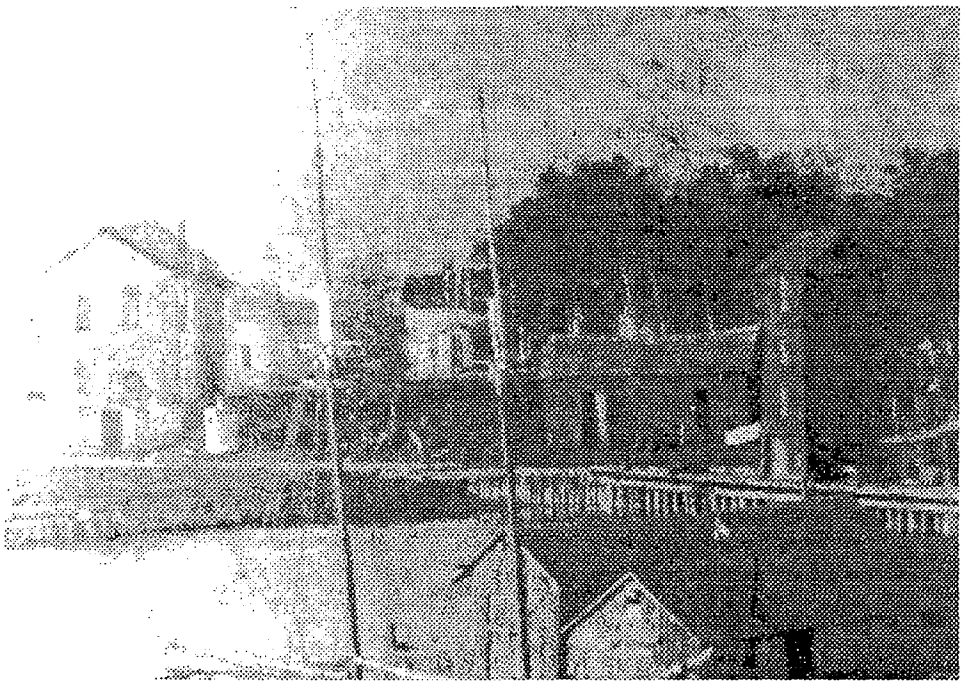
the furnace closed down there was no reason for residents to stay behind. Fayette was a company town and it died a natural death."[80]

Fayette's story was not unique. By the end of 1888, there were only six other charcoal furnaces still in operation in the Upper Peninsula, two of which were less than a decade old. The older stacks throughout the Upper Peninsula had worn out and became outdated, they were too small to be profitable any longer, and three of them followed Fayette out of blast in the 1890s. The era of the charcoal iron industry in the Upper Peninsula was soon to entirely cease.

Episode II Endnotes:

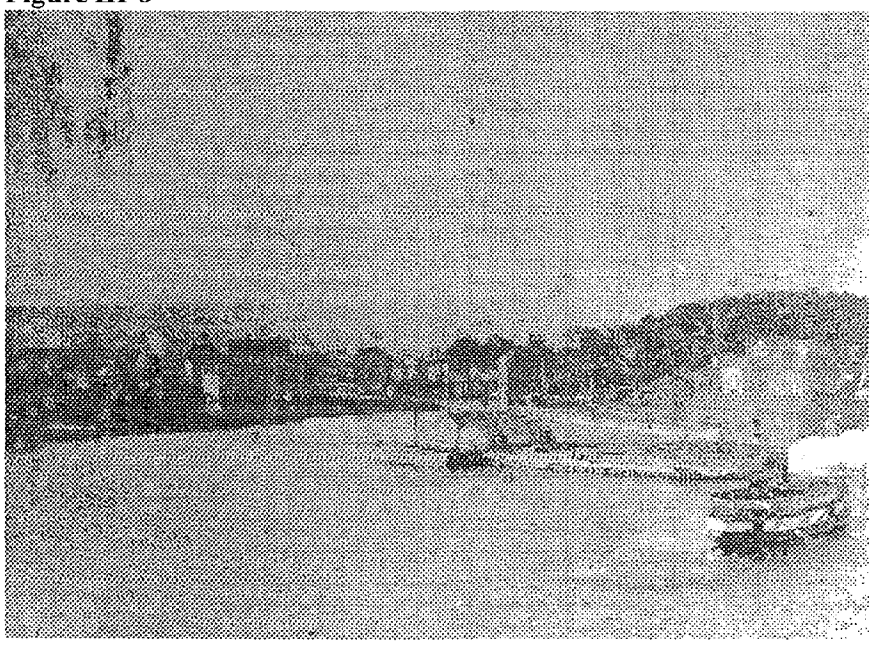
[1] Quinlan, 121.
[2] Quinlan, ?.
[3] Quinlan, 117.
[4] Quinlan, 117.
[5] Friggens, 9.
[6] Friggens, 10.
[7] Quinlan, ?.
[8] Quinlan, ?.
[9] Quinlan, 93.
[10] Friggens, 22.
[11] Quinlan, 104-105.
[12] Quinlan, 105.
[13] Friggens, 22-23.
[14] Quinlan, 109.
[15] Quinlan, 115.
[16] Friggens, 32.
[17] Michigan Historical Center. *National Historic Landmark Nomination Form: Draft.* (Lansing, MI: 1996), ?.
[18] Michigan Historical Center. *National Historic Landmark Nomination Form: Draft.* (Lansing, MI: 1996), ?.
[19] Friggens, 34-35.
[20] Quinlan, 98.
[21] State Archives of Michigan. *Merry Family Papers, Henry G. Merry Diary.* 1885.
[22] Friggens, 9.
[23] Friggens, 23.
[24] Thomas G. Friggens. "Historic Structure File: *Schoolcraft County Pioneer, 4-29-1882.*" Compiled for the Fayette State Historic Historic Park. (Fayette, MI: undated).
[25] Friggens, 41.
[26] Friggens, 37.
[27] Thomas G. Friggens. "Historic Structure File: *Mining Journal, 11-6-1869.*" Compiled for the Fayette State Historic Historic Park. (Fayette, MI: undated).
[28] Thomas G. Friggens. "Historic Structure File: *??.*" Compiled for the Fayette State Historic Historic Park. (Fayette, MI: undated).
[29] Thomas G. Friggens. "Historic Structure File: *Escanaba Tribune, 4-20-1872.*" Compiled for the Fayette State Historic Historic Park. (Fayette, MI: undated).
[30] Thomas G. Friggens. "Historic Structure File: *Escanaba Tribune, 7-2-1870.*" Compiled for the Fayette State Historic Historic Park. (Fayette, MI: undated).
[31] Thomas G. Friggens. "Historic Structure File: *Escanaba Tribune, 9-28-1870.*" Compiled for the Fayette State Historic Historic Park. (Fayette, MI: undated).
[32] Thomas G. Friggens. "Historic Structure File: *Escanaba Tribune, 9-24-1870.*" Compiled for the Fayette State Historic Park. (Fayette, MI: undated).
[33] Thomas G. Friggens. "Historic Structure File: *Escanaba Iron Port, 9-30-1882.*" Compiled for the Fayette State Historic Park. (Fayette, MI: undated).
[34] Thomas G. Friggens. "Historic Structure File: *Escanaba Iron Port, 9-10-1879.*" Compiled for the Fayette State Historic Park. (Fayette, MI: undated).
[35] Thomas G. Friggens. "Historic Structure File: *Mining Journal, 11-6-1869.*" Compiled for the Fayette State Historic Park. (Fayette, MI: undated).
[36] Thomas G. Friggens. "Historic Structure File: *Mining Journal, 11-4-1871.*" Compiled for the Fayette State Historic Park. (Fayette, MI: undated).

Figure III-7



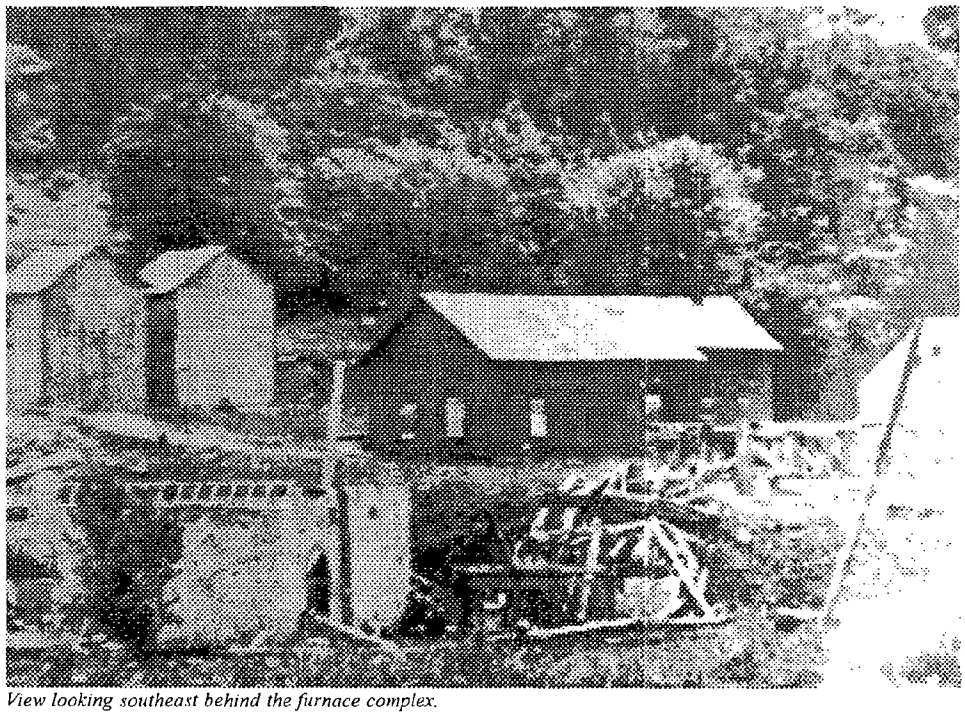
View looking southwest toward the Icehouse (Bldg. #133) and the Grain Elevator (Bldg. #134) from the harbor near the Dock Sheds (Bldg.#136).
Note: The Icehouse and the Grain Elevator (Bldg. #134) are still in relatively good condition, what is the little shed adjacent to the Town Hall (Bldg. #101)?
Date: ca. 1892 - 1910s

Figure III-8



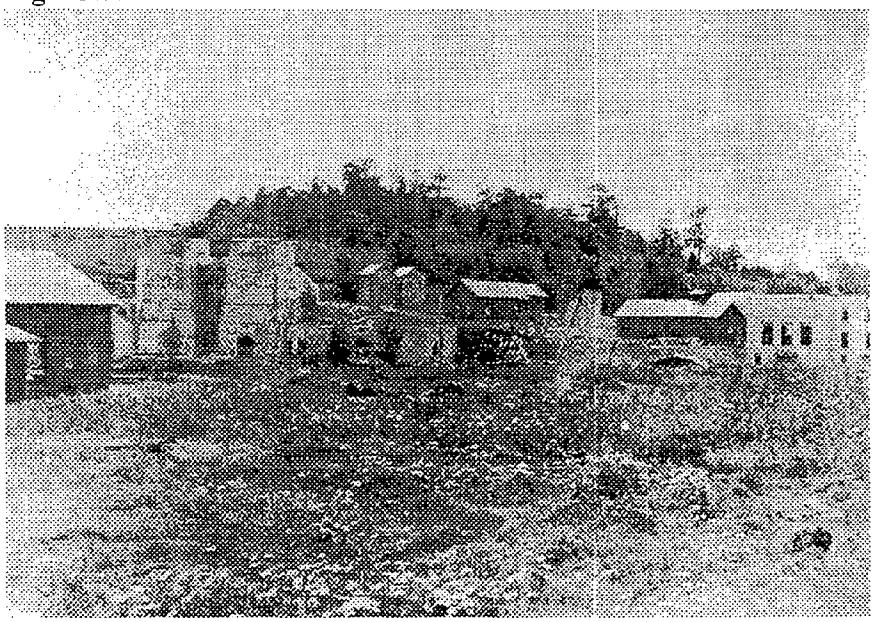
View looking southwest across Snail Shell Harbor toward the townsite.
Note: Several structures which were gone by the time of the 1907 survey are still present, including: the Grain Elevator (Bldg. #134 and the Sawmill (Bldg. #135).
Date: ca. 1892 - 1910s

Figure III-5



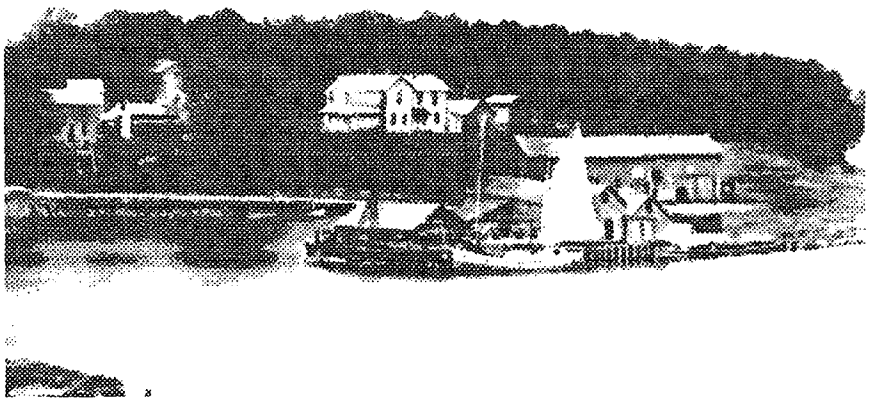
View looking southeast behind the furnace complex.
Note: The two granaries (Bldg #130) and the railroad Roundhouse (Bldg #132) are still present; however, the train trestle has collapsed and the west casting house of the furnace complex (foreground) is in a state of deterioration. (Is the building at the right of the photograph the jail?)
Date: ca. 1891 - 1910s

Figure III-6



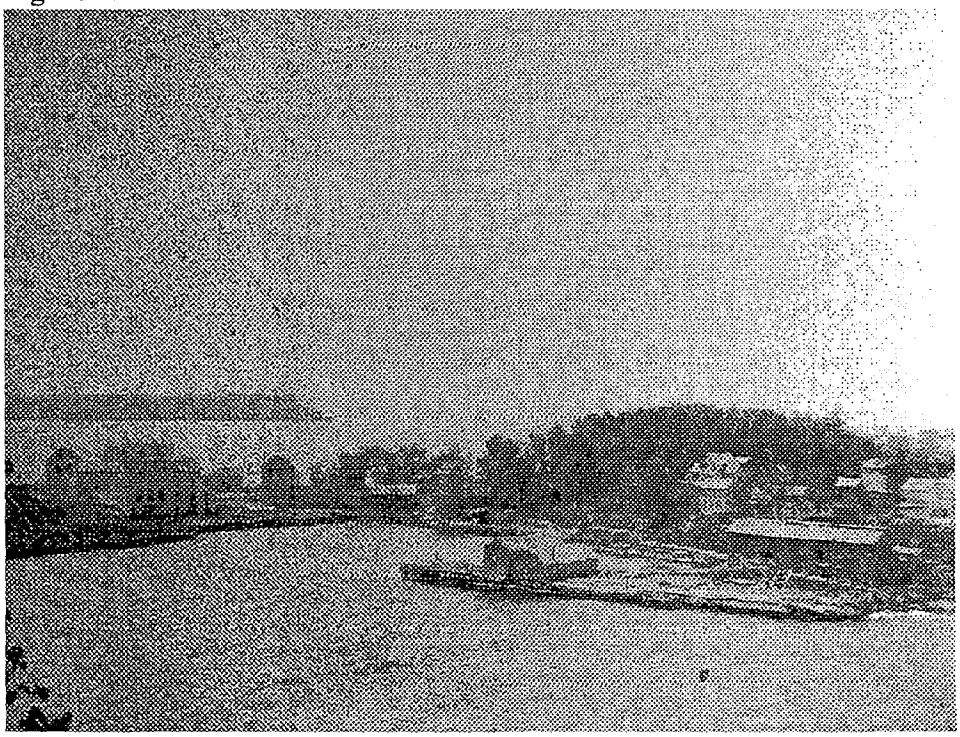
View looking southeast at the furnace complex and surrounding buildings.
Note: The train trestle has collapsed; the granaries (Bldg. #130), the railroad Roundhouse (Bldg. #132), and the Blacksmith Shop (Bldg. #103, adjancant to machine Shop) adjacent to the Machine Shop are all still present; also note the wood frame building in the left foreground which appears to be the Sawmill (Bldg. #135).
Date: ca. 1891 - 1910s

Figure III-3



View looking west across Snail Shell Harbor toward the dock sheds (Bldg. #136) and the Superintendent's House (Bldg.#1) at the north end of the peninsula.
Note: The sawmill (Bldg. #135) and outbuildings of the Superintendent's House are still present (therefore before 1907); the peninsula has overgrown vegetation (after 1891).
Date: ca. 1891 - 1910s

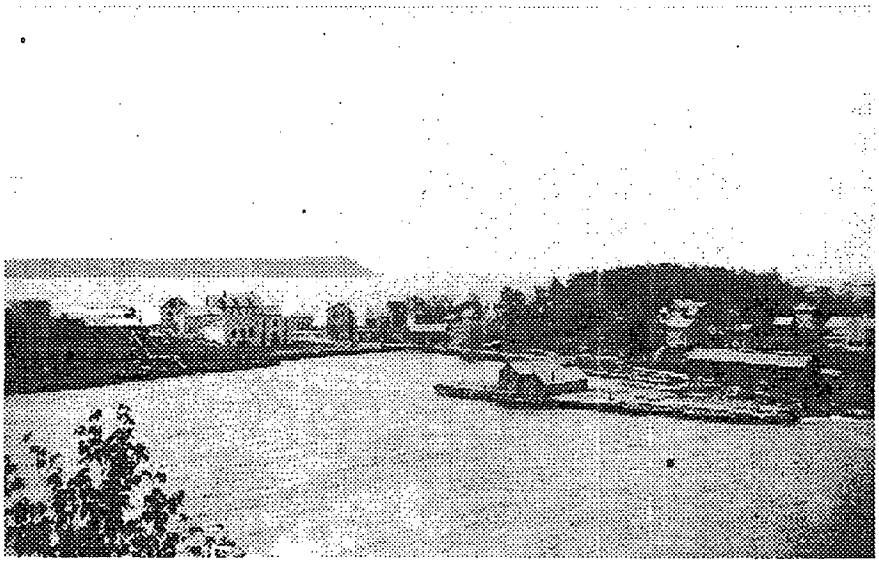
Figure III-4



View looking southwest across Snail Shell Harbor toward the townsite.
Note: Several structures which were gone by the 1907 survey are still present, including: the Icehouse (Bldg#133),and the Sawmill (Bldg#135).
Date: ca. 1891 -1910s

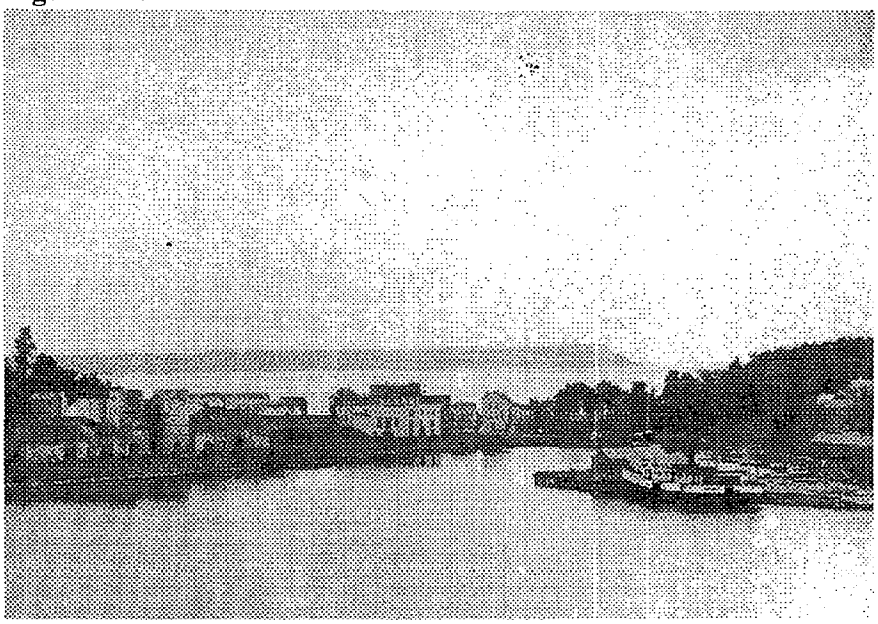
Photographic Chronology of Episode III

Figure III-1



View looking southwest across Snail Shell Harbor toward the townsite.
Note: Furnace complex is in state of deterioration; buildings on either side of the Hotel (Bldg. #100) are still there; several buildings that were gone by the 1907 survey are still present including the Sawmill (Bldg. #135) and the Ice House (Bldg. #133).
Date: ca. 1891 - 1910s

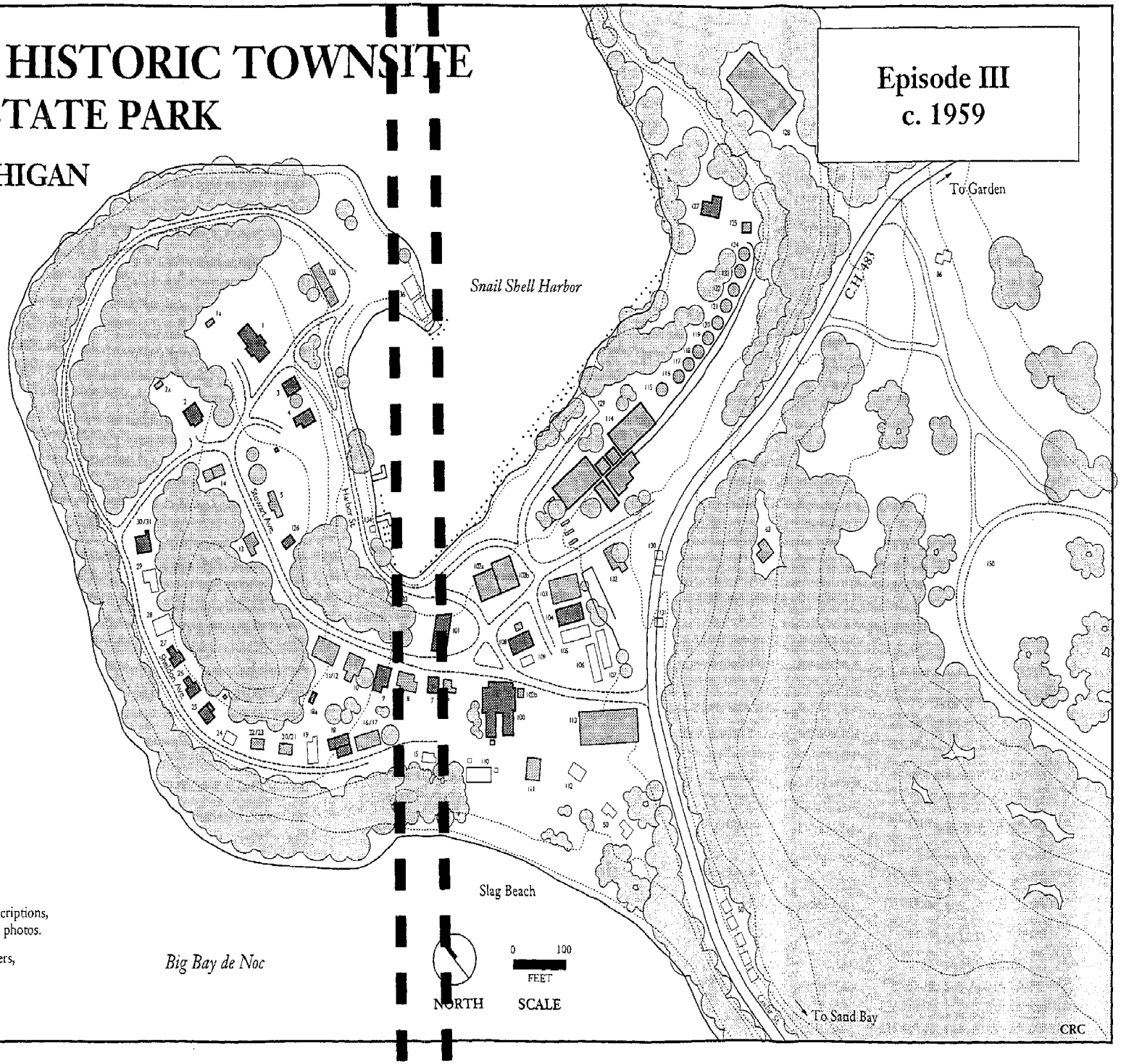
Figure III-2



View looking southwest across Snail Shell Harbor toward townsite.
Note: The roof of the west casting house has deteriorated; several buildings that were gone by the 1907 survey are still present including the Sawmill (Bldg. #135) and the Ice House (Bldg. #133).
Date: ca. 1891 - 1910

FAYETTE HISTORIC TOWNSITE
FAYETTE STATE PARK
GARDEN, MICHIGAN

Episode III
c. 1959



Structures
- Extant building
- Building ruins
- Extant foundation
- Site only

Circulation
- Improved road
- Road
- Path

Vegetation
- Extent of trees
- Extent of shrubs

Sources include verbal descriptions, historic maps, and historic photos.

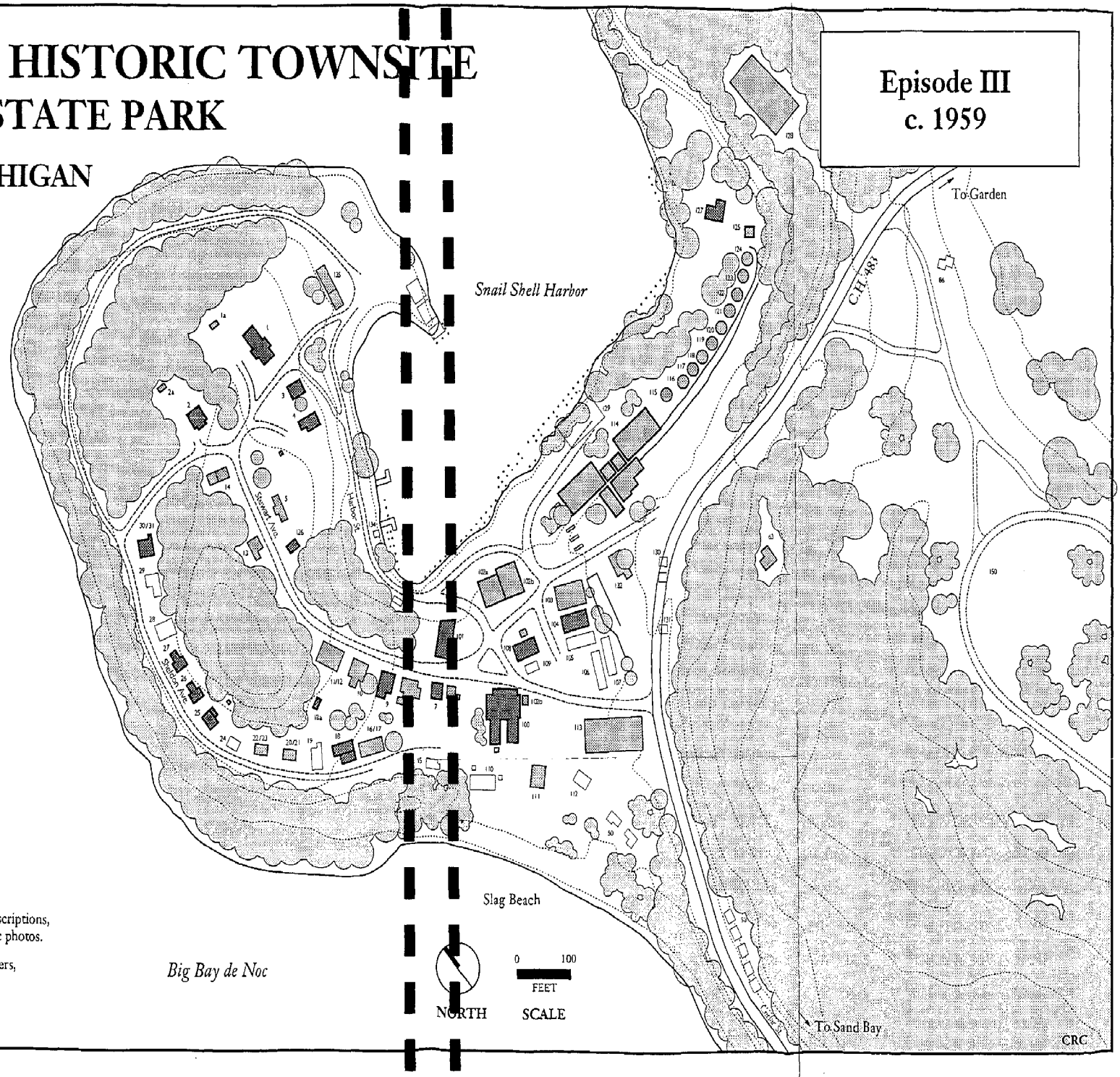
For key to building numbers, see other side of map.

12.12.96

CRC

FAYETTE HISTORIC TOWNSITE
FAYETTE STATE PARK
GARDEN, MICHIGAN

Episode III
c. 1959



Structures
- Extant building
- Building ruins
- Extant foundation
- Site only

Circulation
- Improved road
- Road
- Path

Vegetation
- Extent of trees
- Extent of shrubs

Sources include verbal descriptions, historic maps, and historic photos.

For key to building numbers, see other side of map.

12.12.96

Episode III Endnotes:

[1] Thomas G. Friggens. "Historic Structure File: *Malmann Interview, 11-9-1977.*" Compiled for the Fayette State Historic Park. (Fayette, MI: undated).
[2] Comments on Draft Fayette CRMP." Prepared for the Michigan Department of State by the State Historic Preservation Office, Michigan Historical Center.
[3] *Michigan History*, June 1957, p. 204
[4] Thomas G. Friggens. Conversation with Barbara Wyatt, November 8, 1996.
[5] Curtis, p. 237
[6] Curtis, p. 201
[7] Curtis, p. 207
[8] Curtis, p. 208
[9] *Michigan History*, April 1928, p. 390
[10] *Michigan History*, p. 390
[11] *Michigan History*, p. 390

> On the land side there are a number of old clearings and an old baseball park now used as pasture, but which might be developed into a golf course. Here a variety of flowers and shrubs may be found, including some butternut trees.[11]

These specific descriptions indicate the general transformation of the landscape from a fully inhabited and intensely used site to one that has essentially been abandoned. Throughout the twentieth century the site began to revert to earlier stages of the vegetation that was evident when white settlement began. Maria Quinlan stated in her master's thesis on Fayette that the second growth timber, which began to encroach when the town was abandoned, was valueless for furnace operations (and presumably for other industrial uses). The Jackson Iron Company had sold the land as soon as it was cleared for farming. At Fayette, with its poor soil and steep terrain, there was no such market, therefore the land continued to evolve in its natural direction.

remains of this dock was popular for cottage-type docks.[4] However, to date, documentation to verify its date of construction has not surfaced.

Many of the features from the earlier period were abandoned or obscured. In addition to buildings and structures discussed elsewhere, this includes the race track, the railroad, and the large dock. Interestingly, the race track still is very visible in a 1953 aerial photograph, (Figure III-32). By 1963 vegetation had begun to encroach on the race track.

Vegetation

During this period, vegetation at the townsite remained remarkably consistent considering the general neglect exhibited by the buildings and other site features. On the bluff east of the townsite, and on the east side of the bay, forest cover encroached vigorously. Within the townsite, vegetation filled gaps around buildings and foundations and extended in all directions on the knoll. The townsite appears to have remained fairly open, with grass prevailing over shrub and tree growth. The woods probably began to exhibit the course of succession that would unfold with little human impact. John Curtis explains evolution of the cedar cliff as follows:

> (cedars) are capable of perpetuating themselves for very long periods. Windthrows of the cedars only result in rapid regeneration by the branches, so that few new species have the opportunity to invade. Further succession is probably dependent on . . . a general trend toward mesic conditions. Black ash is one of the first trees to benefit from these changes and forests dominated by ash represent the next stage in a normal succession. The breaking of the continuous evergreen cover by the invasion of the deciduous ash leads to considerable changes in the understory, particularly in the amount and kinds of shrubs. Other deciduous trees follow quickly . . . [5]

Curtis describes the eventual invasion of deciduous trees and the resulting changes to the understory. At Fayette, the main invader has been sugar maple, which is far more prevalent than any other species. This is because gaps tend to be filled by maple, resulting in the loss of other species. [6]

Trembling aspen (Populus tremuloides), Curtis states, primarily is a pioneer invader. The growth of aspen seedlings is very fast at first, then slows down appreciably as crowding effects begin to take hold. Because the saplings are extremely intolerant of shade, differences in size quickly are magnified as some take over and the remainder become suppressed and soon die.[7]

White birch resembles trembling aspen in many respects and can replace it or grow along with it in similar secondary successions. It requires slightly more mesic conditions and is more likely to be found as a gap-phase tree in small openings. Along Lake Michigan and Lake Superior it can reach greater size and age than aspen.[8]

In 1928, the following was written about the appearance of the site:

> The dwellings, which were of wooden construction, have been kept in good repair by the Cleveland-Cliffs Iron Company, which in 1905 bought all the property of the Jackson Iron Company. . . about fifteen of the cottages are used by tourists during the summer months. . . in all there about 26 habitable buildings. All of these are situated on a promontory with an elevation of twenty to forty feet above the waters of this arm of Lake Michigan and delightfully shaded, not only by a number hardwood trees, but with thickets of cedar and arborvitae. . .To the south and west is the lake and to the north is the small harbor with its old docks providing landing places not only for small boats but also the lake steamers.[9]

At the same time the cliff was described as follows:

> Across the harbor is a limestone [dolomite] cliff a quarter of a mile long rising out of the water to a height of some sixty feet and above it a hill covered with timber. . . The shore consists of limestone [dolomite] pebbles so that it is not much used by bathers .[10]

Vegetation at the ballfield was also undergoing change:

Superintendent's House (Building #1):

The two barns and other outbuildings adjacent to the Superintendent's House appear in 1907 photographs, but were not depicted on the map prepared by the Cleveland-Cliffs Iron Company. It is assumed that these outbuildings either were removed or deteriorated shortly following the 1907 survey. It has also been suggested that it was shortly following 1907 that the large dolomite slab driveway was constructed at the Superintendent's House.[2]

Supervisor's Residence (Building #3):

Historic photographs indicate that this structure had a one-story kitchen wing attached the south end of the building, (Figure III-25). However, this disappears prior to the end of the episode. It is not known whether this portion of the house deteriorated or was demolished.

Workers' Cabins, (Building Site #50):

The survey of the townsite completed by the Cleveland-Cliffs Iron Company in 1907 indicates that the workers' cabins were already in ruin by this time.

Utility Systems

Although there is no documentation, it is assumed that the water line that was constructed during the furnace's operation, continued to service the hotel and the company store. Furthermore, it appears that the well near the Superintendent's House was used throughout this episode. The water pump at the center of the townsite also appeared to be used during the early part of this episode, (Figure III-26).

The Post-Industrial Landscape

With the cessation of the smelting and charcoal operations at Fayette, a great quiet settled on Snail Shell Harbor. For the next 67 years the townsite was used seasonally by tourists and fishers. In a 1905 merger, Cleveland-Cliffs Iron Company consolidated Jackson Iron Company and acquired its holdings, including Fayette. A successful operation was never again established. Fire took some buildings. By 1957 there were two fishermen and a dog living at the townsite.[3]

It was during these years that the town became known as a ghost town. This image was promoted by the fading paint on the buildings and the gradual dilapidation and neglect. A general sense of abandonment is conveyed in historic photographs.

Circulation Systems

Some changes in the roads within the townsite occurred during this period of Fayette's history. According to the historic photographs, it appears that gravel was applied to some of the major streets. The light gray color contrasts with the earlier dark gray of the slag. Roads that served the kilns and furnace were abandoned during this period, as was the narrow gauge rail line.

Site Features

During this period few site features were added. A fish shack (Building #127) was built near the kilns and a dock may have been built for recreational use. A dock may also have been built off of the slag beach, although this feature could have been built during Fyaette's industrial period. According to Tom Friggens, the cribbing that

Industrial Buildings

Furnace Complex, (Buildings #114 A-M):

Deterioration of the elements of the furnace complex began almost immediately following its abandonment. Historic photographs indicate that by 1907, several portions of the complex were already almost completely lost to deterioration, especially the roofs of the casting houses and the wood frame structures that were attached, (Figure III-2). By the end of this episode, only the dolomite portions of the complex remained, and even those were in a deteriorated condition.

Commercial and Recreational Buildings

Historic photographs indicate that at the beginning of this episode (during the 1907 survey) most of the town's buildings had experienced excessive weathering, and most of their exterior paint was gone. However, photographs from a few years later indicate that an excessive painting campaign was undertaken (most likely to boost its appearance and improve its resort potential). The new paint scheme that appears at most of the buildings is comprised of a lighter colored field (clapboard siding) with trim elements (corner boards, window frames and casings, etc.) painted a darker color. Although theses colors cannot be verified, it was typical for the period that the lighter field was probably an off-white or light gray and the trim was a dark green or gray. A thorough paint analysis would reveal these colors more precisely. Furthermore, physical investigation revealed evidence of red paint at several structures.

Company warehouse / store (Buildings #102 A & B):

A fire destroyed all portions of these buildings, with the exception of the massive dolomite walls, in 1922 (Figure III-29). For the seventy plus years following, the dolomite walls have remained relatively intact.

Town Hall (Building #101):

The second floor of this building, located in the town center, is thought to have been used for theatrical performances well into the 1950s. Furthermore, the interior partitions were relocated at the first floor sometime prior to the end of this episode and acquisition of Fayette by the State of Michigan.

Company Office (Building #108):

This structure, which is located in the town center, continued to be utilized throughout this episode and was altered some time in the 1940s. Alterations included: the reconfiguration of the east elevation, including the installation of a large overhead door, and the removal of the wood strip flooring and the installation of a poured concrete floor, and the removal of interior partition walls at the first floor. Furthermore, the exterior stair leading to the second floor, which ran alongside the south elevation, disappeared. It is not currently known whether this stair and enclosure was intentionally removed or deteriorated.

Residential Structures

During this episode of time of virtual abandonment, several of the town's structures were lost to deterioration. Some were already gone by the time of the 1907 survey, however, the majority were lost after the survey and before the next time the site was documented in 1961. Those buildings that were photographed during the 1907 survey, but now are only foundation ruins include: the Boarding House (Building #5), and several Supervisors' Residences (Buildings #6,8,10,11/12,14,16/17,19,20/21,22/23,28,29,63, and 86). Two of the Supervisor's Residences that were photographed in 1907 have deteriorated to the point that no evidence of them remains above grade, (Buildings #15, 24).

EPISODE III: 1892 - 1958

Following the Jackson Iron Company's termination of iron smelting operations at Fayette in September of 1891, the town's population, which once numbered nearly five hundred, dwindled to approximately twenty people. By 1892, Fayette's vitality abruptly declined and the community quickly became but a ghost of its earlier self, never to become a populated town again. The historic written documentation regarding this episode of time in Fayette's history is vague and scattered, however, there exists an extensive amount of historic photographs taken during this period of time. (Presumably several of the photographs were taken as different schemes to revitalize the town as a resort came and went.)

During the early years following the departure of the Jackson Iron Company, most of the town's residents moved away, but a few remained at Fayette and either fished or farmed as a living. In addition, the hotel continued to thrive, and the site of the former industrial town became a place for tourists and day picnickers from nearby towns. Historic documents state that the Escanaba and Garden Bay Transit Company ran a boat from Escanaba to Fayette for weekend picnics and sightseeing.

In a 1905 merger, the Cleveland-Cliffs Iron Company consolidated the Jackson Iron Company and thereof acquired its holdings, including Fayette. In 1907, the new owner undertook an extensive survey of the townsite, including extensive photographs, and a map of the entire townsite. Figure III-33 is a reproduction of the map prepared in 1907. Then, from 1907 to 1914 the Cleveland-Cliffs Iron Company leased Fayette to the Escanaba Gladstone Transportation Company, and in 1916 to a gentleman from Wisconsin, whose plans were to renovate and improve Fayette as a resort area, however, it appears that no renovation work was actually undertaken. (Some accounts state that it was actually two men from Ashland, Wisconsin that saw the recreational potential of this remarkable site.) Apparently this type of resort development was never successful, as another attempt at resort use was tried in 1946, but also failed. In 1946, it was Gladys Edwards of Detroit who bought the site, with an eye toward establishing a resort. Her finances did not comply, and for the next ten years the site essentially remained dormant. In 1956 it was sold at public auction to the Escanaba Paper Company. In 1957, the state acquired the townsite and surrounding acres (from Escanaba Paper Company?).

Apparently, during some of the attempted resort years, some of the supervisors' houses were used for summer housing. However, information is unclear regarding how this was done: leasing, etc., exactly why used (private or organizations, children's camp). A person interviewed regarding the history of Fayette in 1977 remembers that they: "Stayed at Fayette a week each summer for several years - 6 boys, 6 girls, and chaperone. Girls stayed in 2-story workers' cabins [presumably actually the houses along the back street of the peninsula, the cabins had long since deteriorated by that time], guys in a tent near lake. [The] cabin's first floor [was] one large room with kitchen."[1]

Construction and Alterations of Buildings

The structures in Fayette experienced extensive deterioration / loss between 1891 and 1907. The 1907 survey undertaken by the Cleveland-Cliffs Iron Company revealed that at that time there were approximately fifty extant structures within the townsite, (Figure III-33). Even more deterioration took place after this survey, and by the end of this episode there were only nineteen structures remaining at the townsite. Due to the lack of dated historic documentation from this period (with the exception of the 1907 survey), it is difficult to determine just when these buildings disappeared. They were there during the 1907 survey, but were gone by the time a second survey was undertaken by the State of Michigan in 1961. Houses that were still used as cottages along the back street continued to be maintained through at least the 1940s, but quickly deteriorated as they were no longer used.

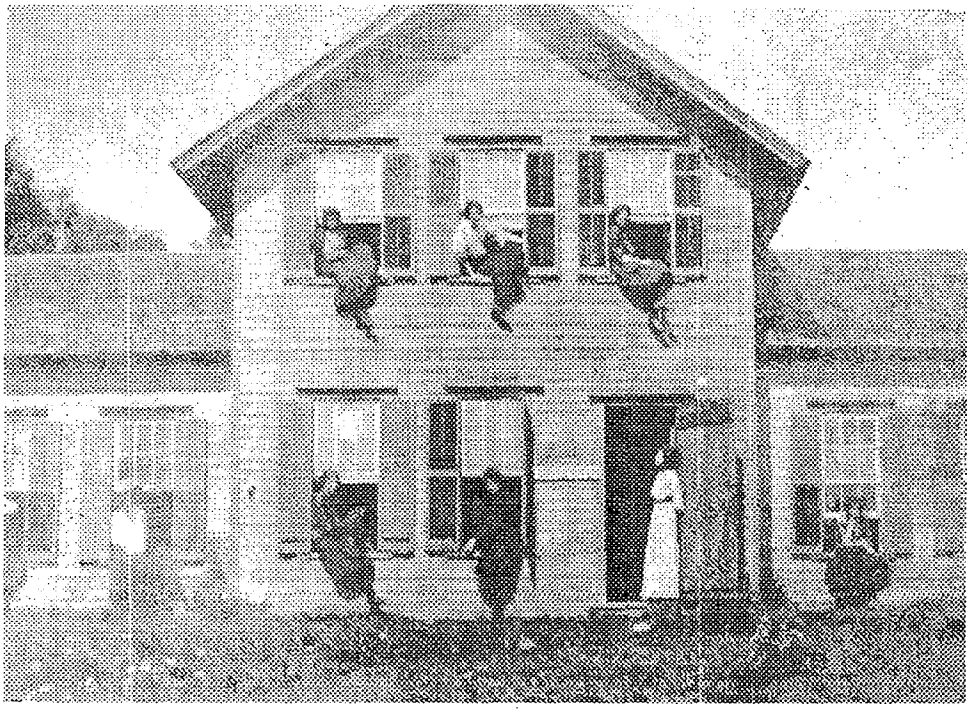
Figure III-9

View looking north across Snail Shell Harbor from "Furnace Hill."
Note: This view is above the location of the charcola kilns.below.
Date:ca. early 1900s

Figure III-10

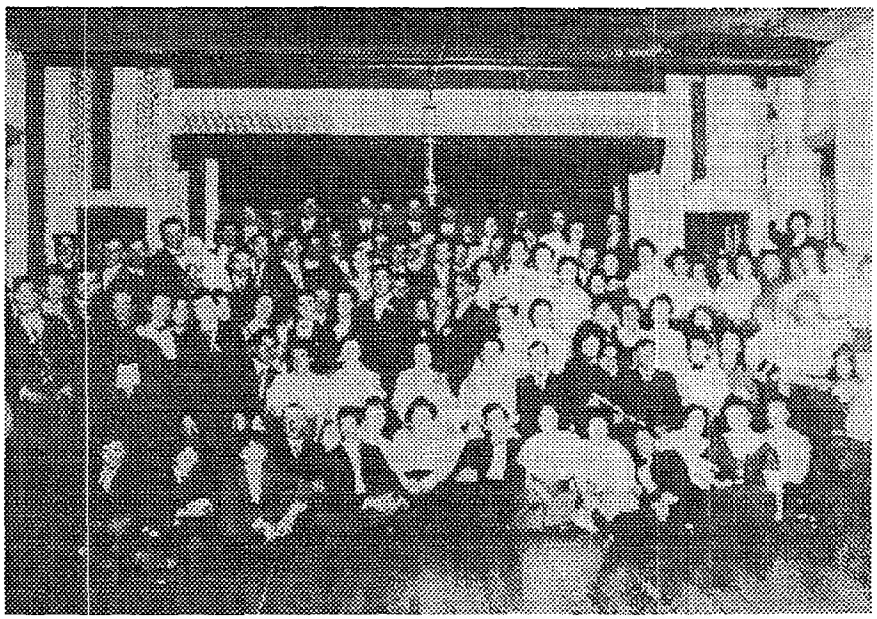
View looking southeast across Snail Shell Harbor toward charcoal kilns and limestone kiln.
Note: The Hay Barn (Bldg. #128) is still present (therefore before 1907 survey); the small gable-roof shed near the lime kiln is also still present (this building was later replaced with a fish shack building ca. 1910s - 1920s).
Date: ca. 1900 - 1907

Figure III-11



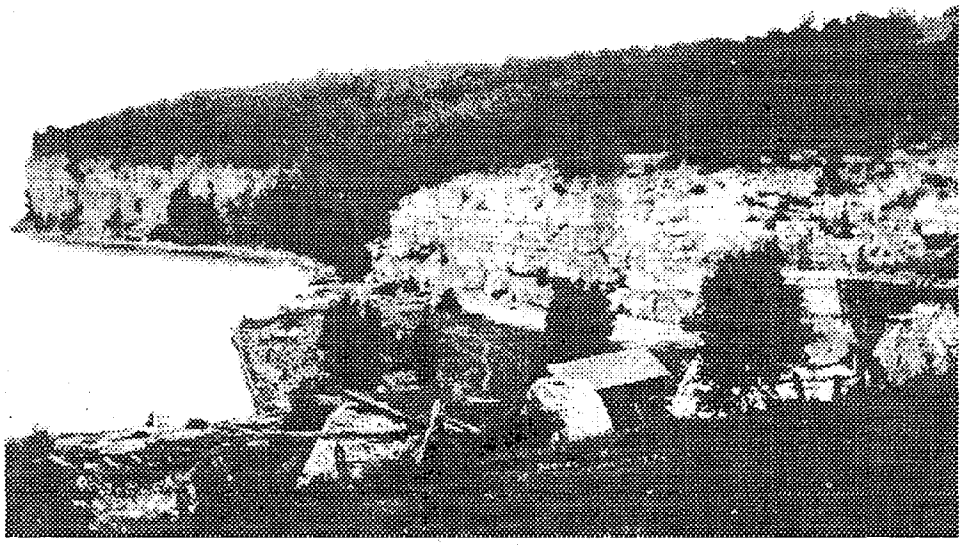
The Boarding House (Bldg #5) located near the supervisor's residences at the north end of the peninsula.
Date: August 1905.

Figure III-12



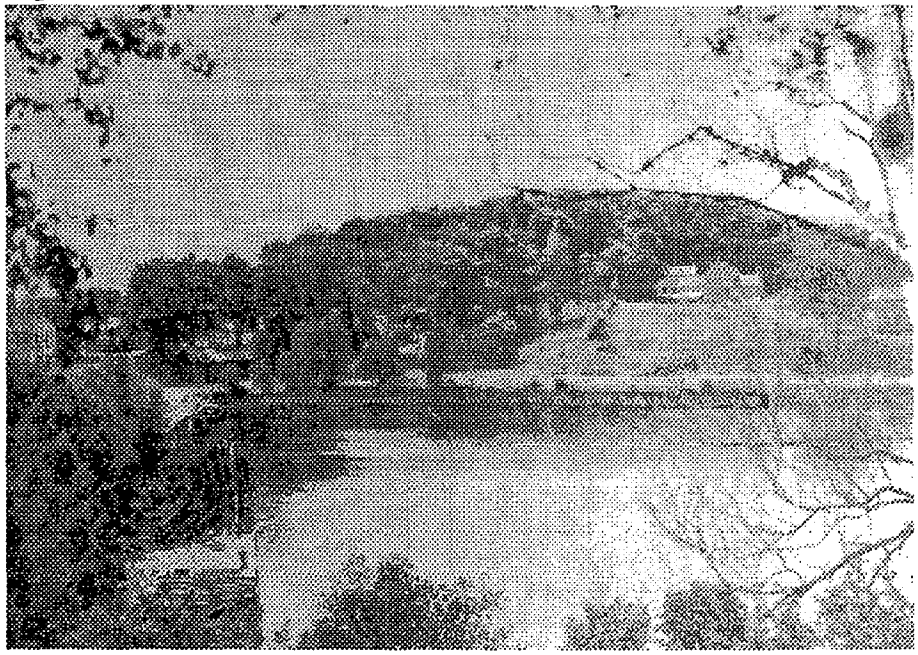
Interior view of the second floor of the Town Hall (Building #101).
Note: The decorative hangings along stage wall; plaster damage at the ceiling and the wall at the northeast corner of the room.
Date: ca. 1908

Figure III-13



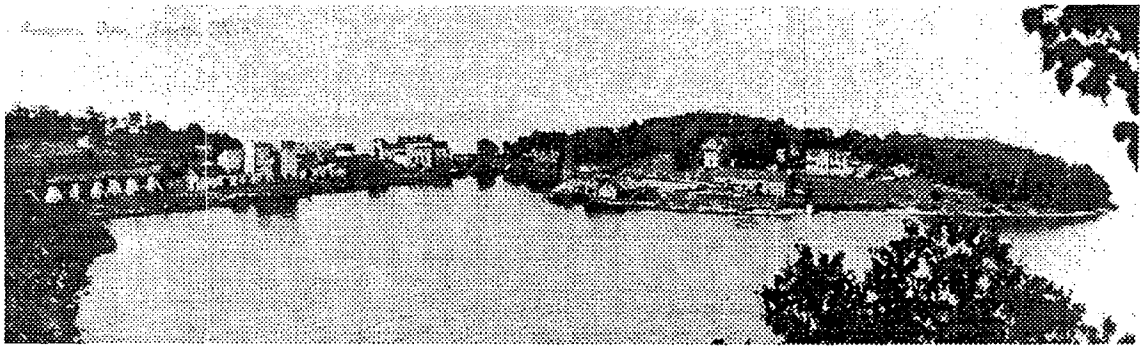
View looking northeast from furnace hill toward the limestone bluffs.
Note: The walkway above the charcoal kilns has deteriorated; however, the Hay Barn (Bldg.#128) and the small wood frame shed (not assigned a building number) near the lime kiln are still present.
Date: ca. 1900 - 1910s

Figure III-14



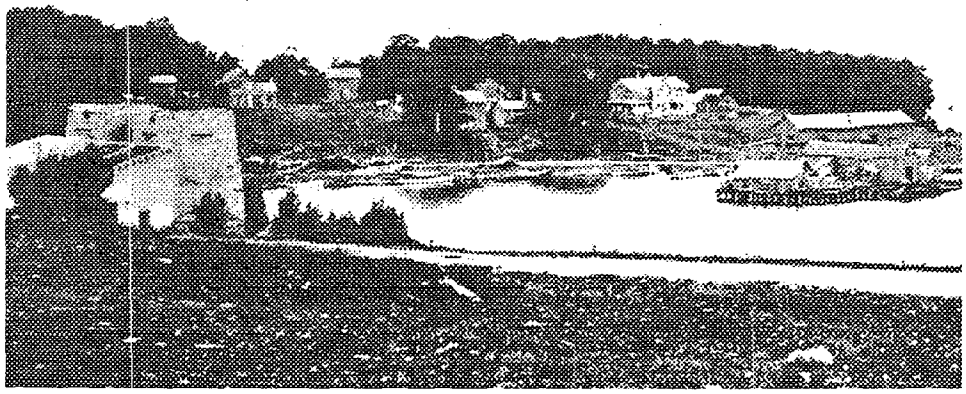
View looking west across the harbor toward the Boarding House (Bldg. #5).
Note: Portions of the dock remain in the left foreground; the Icehouse (Bldg. #133) is still present (therefore prior to 1907 survey); however, the Grain Elevator (Bldg. #134) is already gone; there is an extensive amount of vegetation between the furnace and the docks (likely a few years after abandonment).
Date: ca. 1923- 1930s

Figure III-15



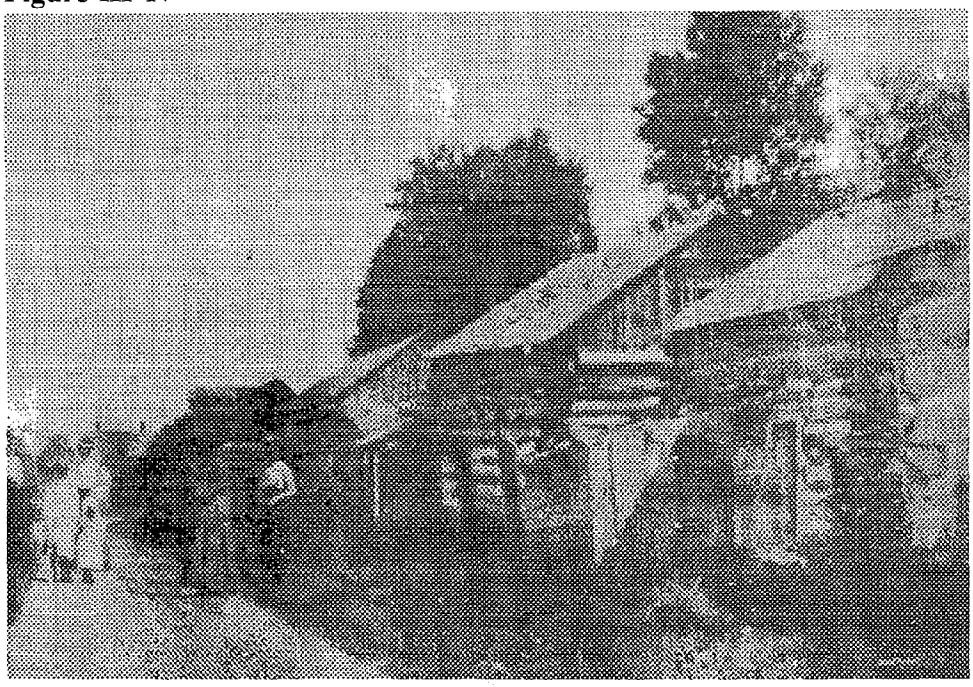
"Panoramic View, Fayette, Mich."; dated to 1907 by the State of Michigan, (on back of print).
Note:The charcoal kilns still relatively intact; several of the dock buildings still there; the Sawmill (Bldg #135) is still there.
Date: ca. 1900 - 1910s

Figure III-16



View looking northeast across Snail Shell Harbor.
Note: Several of the buildings that were gone by the time of the 1907 survey are still present, including: the outbuildings at the Superintendent's House (Bldg.#1,and the Sawmill (Bldg. #135).
Date: Ca. 1891 - 1906

Figure III-17

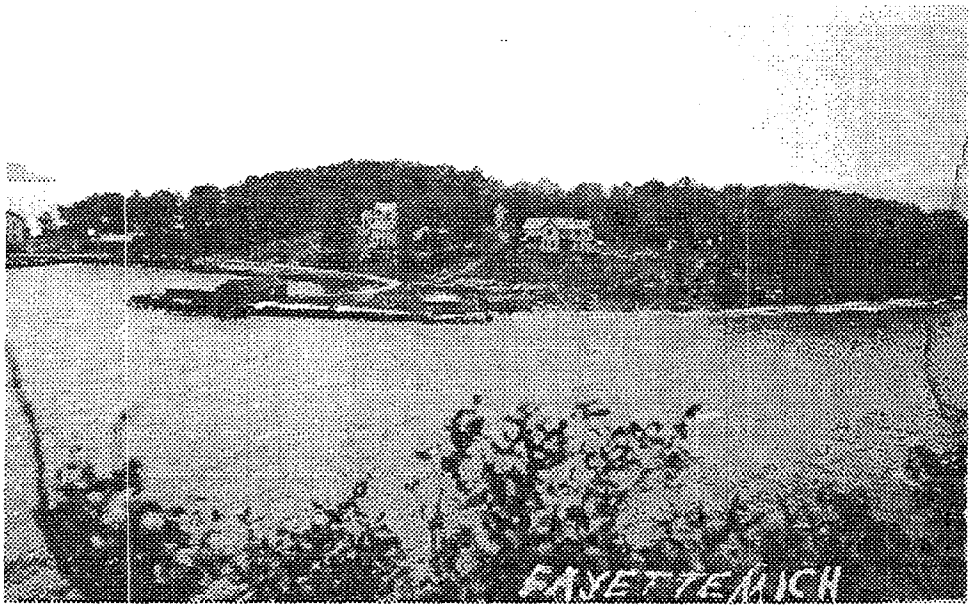


View looking north at the workers' cabins.
Note: The location and orientation of this photogrpah can be determined using the hotel (in the background) as a reference; the cabin's are deteriorated; the people in the photograph appear to be from the 1907 survey group.
Date: ca. 1907

Figure III-18

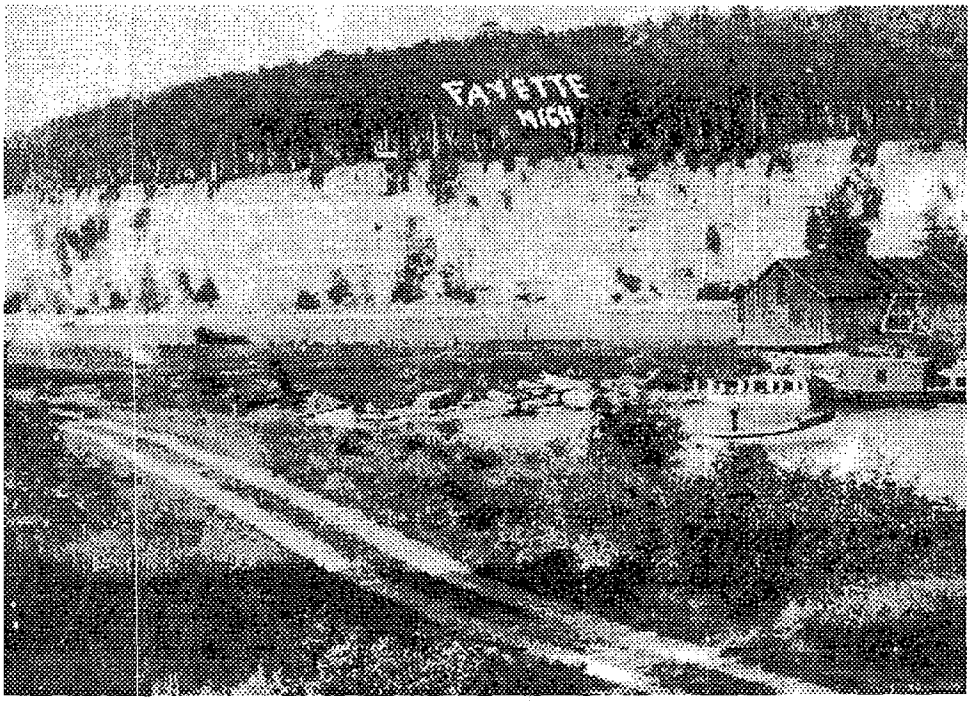
View looking down Stewart Avenue toward the town center.
Note: This photograph was probably taken as part of the 1907 survey; all of the residences along the south side of the road are still intact.
Date: ca. 1907

Figure III-19



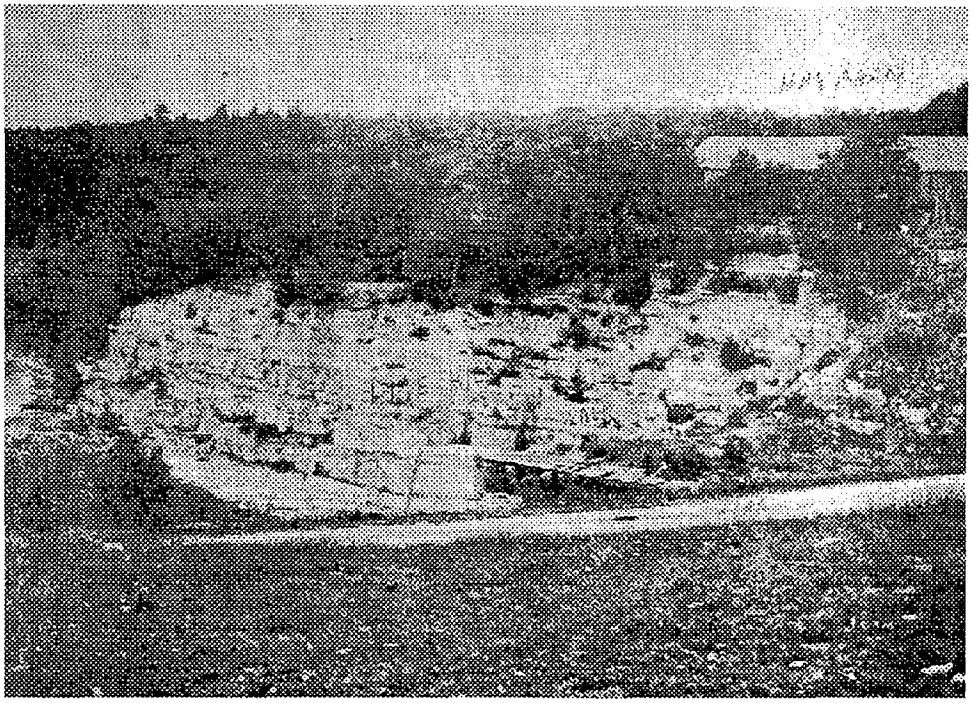
View looking west across Snail Shell Harobr toward the Superintendent's House (Building #1).
Note:The sawmill (Bldg. #135) is gone; but one of the dock sheds (Bldg. #136) is still there.
Date: ca. 1920s

Figure III-20



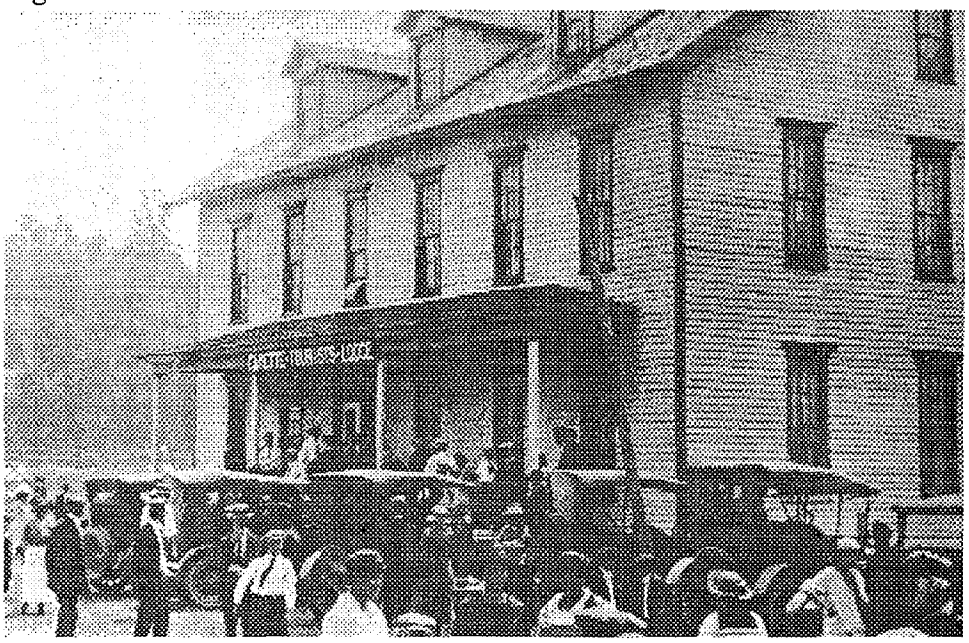
View looking east across the Snail Shell Harbor toward the limestone bluffs from the area near Building #4.
Note: The dock shed (Bldg.#136) is still there but the Sawmill (Bldg.135) is gone.
Date: ca. 1907 - 1920

Figure III-21



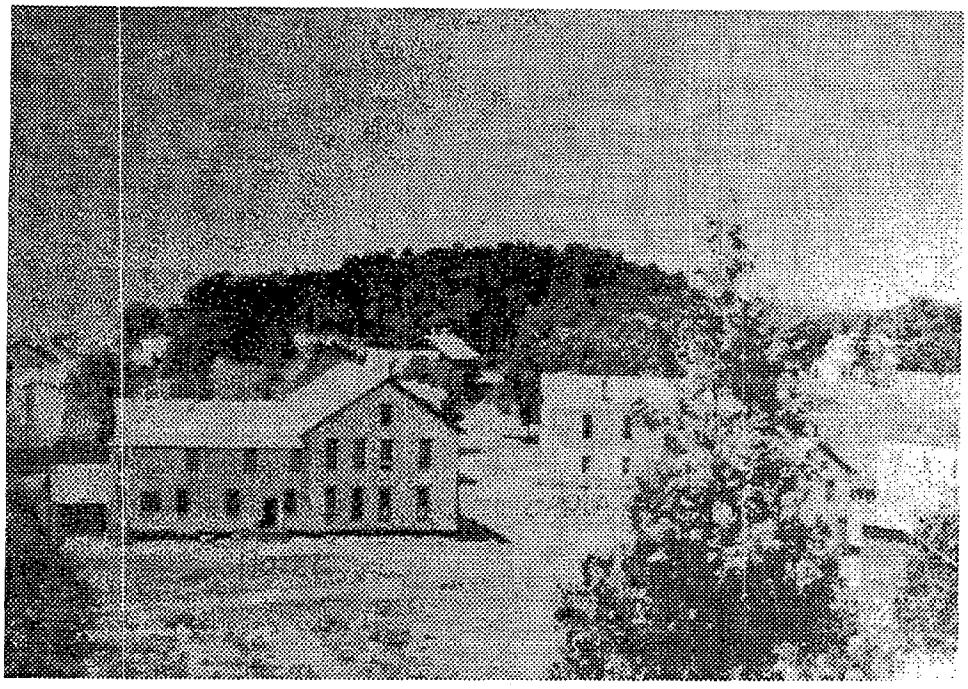
View looking down from "Furnace Hill" toward the limestone bluffs and lime kiln (Bldg. #125).
Note: The upper walk to the lime kiln has deteriorated; the hay barn (Bldg. 128) is still there.
Date: 1907 - 1920

Figure III-22



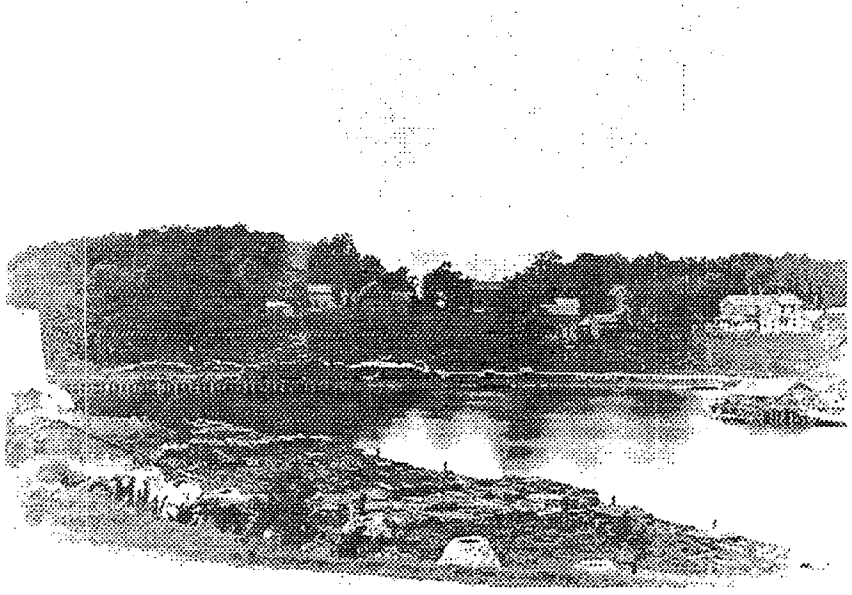
View of the hotel (Bldg. #100).
Note: The wood fence in the left background.
Date: ca. 1900s

Figure III-23



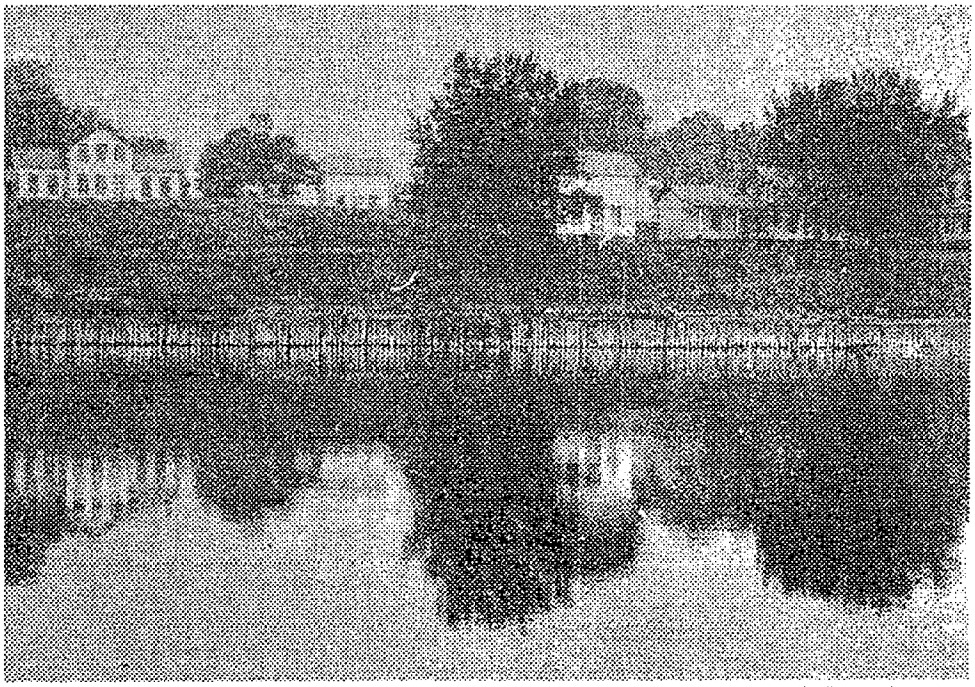
View looking west into the center of the townsite.
Note:The paint scheme with dark trim on the buildings (after 1907);the outbuilding at the rear of the hotel (Bldg.#100);the photograph was taken before the fire at the Company Store / Warehouse (Bldg. #102A &B).
Date: ca. 1907 -1922

Figure III-24



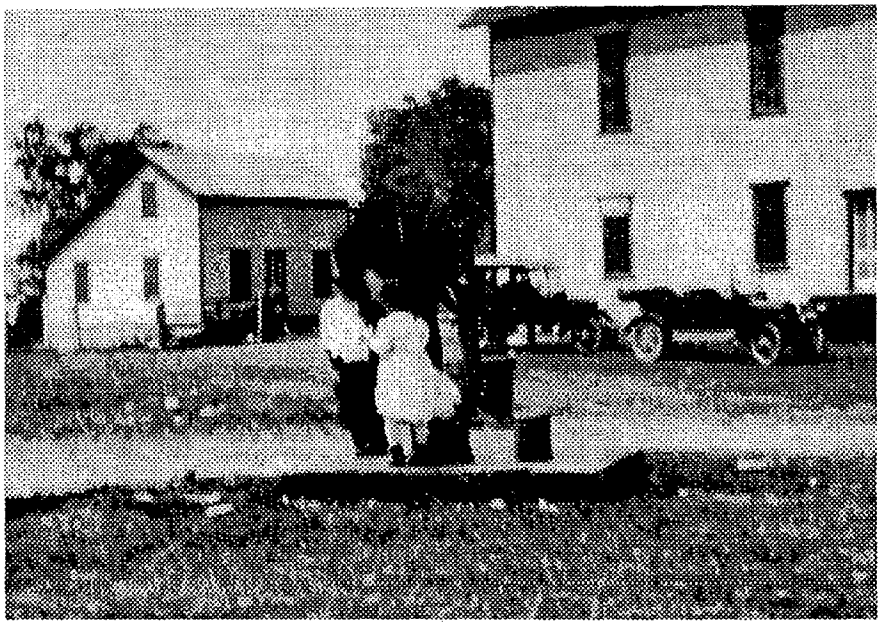
View looking west across Snail Shell Harbor.
Note: All of the buildings still remain, several of which are now gone, at the north end of the peninsula (including the Boarding House (Bldg. #5), and the outbuildings at the Superintedent's House); there is an extensive amount of stockpiled wood at the docks.
Date: ca. 1907 - 1920

Figure III-25



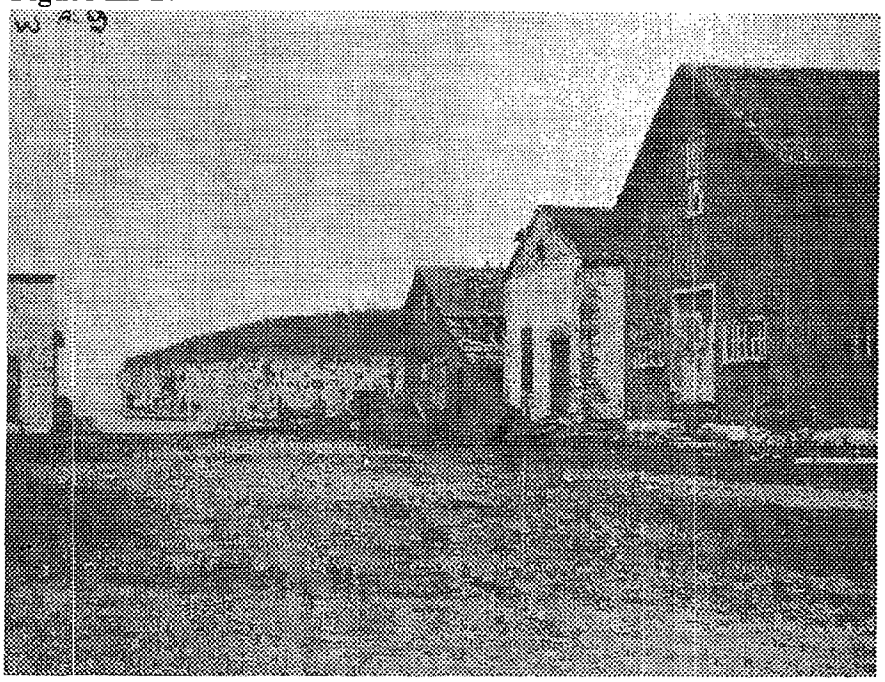
View of the buildings at the north end of the peninsula, including the Boarding House (Bldg #5) and three of the supervisors' residences (Bldgs. #3, 4, and 6).
Note: The one-story wing at the south end of Bldg. #3 is still there, and Bldg. #6 is still present (destroyed by fire ca. 1950).
Date: ca. 1907 - 1920s

Figure III-26



View of the water pump located just south of the Company Store (Bldg. #102A) in the town center.
Note:Cars alongside of the Town Hall (Bldg. #101), dark color trim on town hall.
Date: ca. 1907 - 1920

Figure III-27



View looking down the open area toward the harbor with the workshops along the right side of the road. (Compare with Figure II-6)
Note: From back to front, the Blacksmith Shop (Bldg #103), the Machine Shop (Bldg. #104) and the Carpenter Shop (#105) are all still present; but this photograph was taken prior to the fire at the Company Store / Warehouse in 1922.
Date: ca. 1907 - 1922

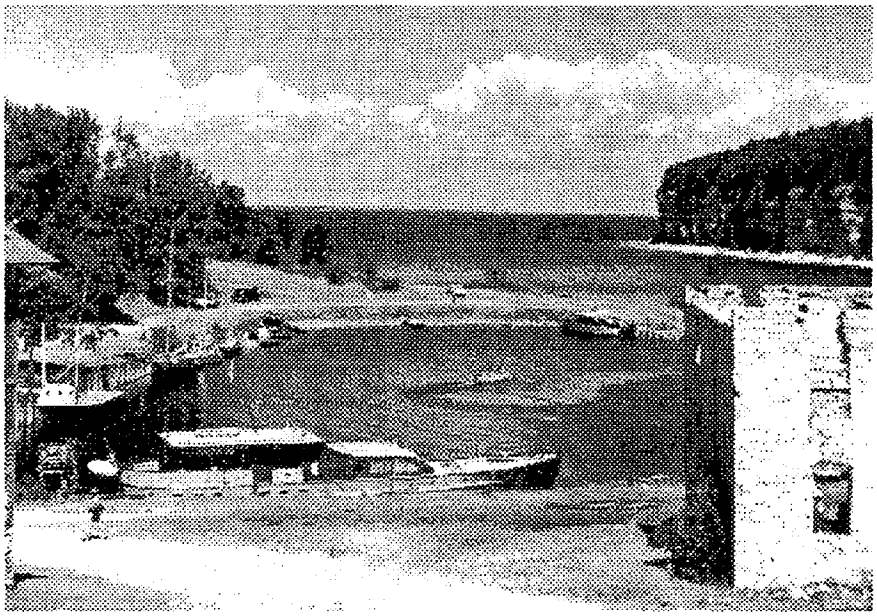
Figure III-28

View of the east elevation of the Town Hall (Bldg. #101) looking north.
Note: The post office sign is on the side of the building, whereas later photographs show that the sign is on the hotel, and earlier photographs show it on the Company Store. The dark paint trim indicates the paint scheme that appears on the town's buildings after 1907.
Date: ca. 1920s

Figure III-29

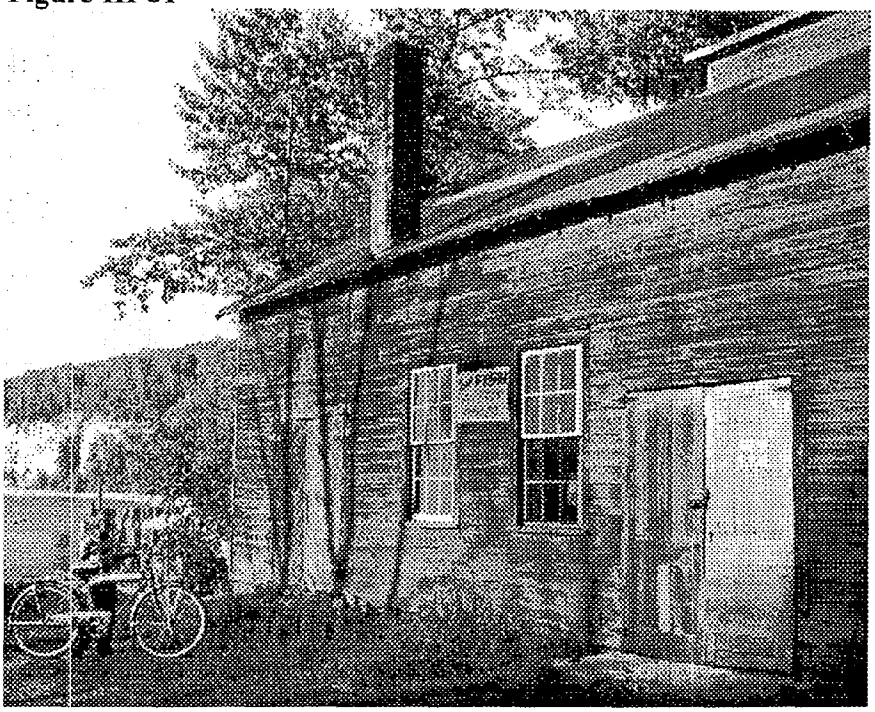
View looking southwest toward the town center from the county road.
Note: Guard rails on the side of the road for cars; the photograph was taken after the fire at the Company Store / Warehouse (Bldgs. #102A & B); the dark trim paint scheme appears at the buildings; the post office sign is on the hotel.
Date: ca. 1922 - 1930s

Figure III-30



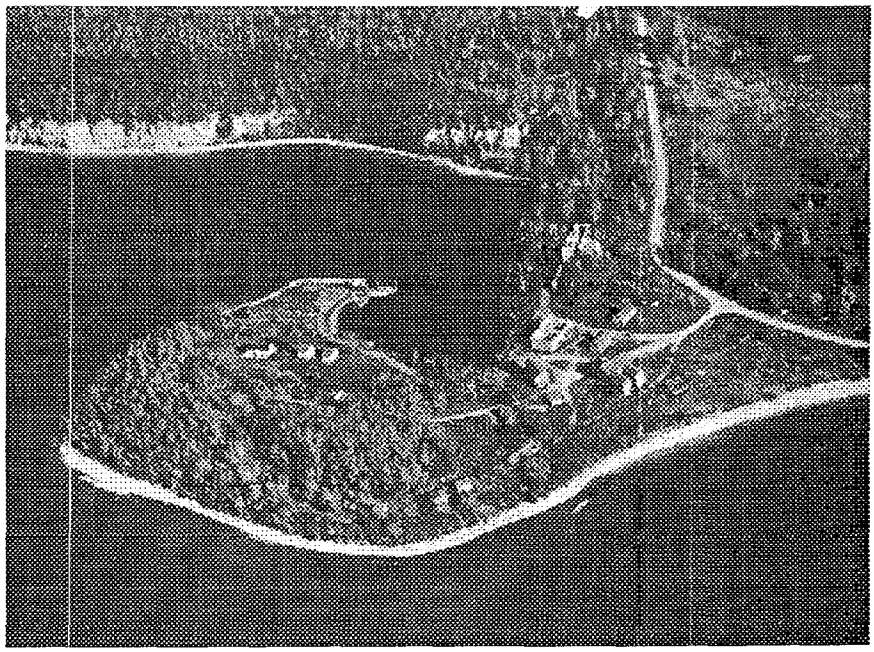
View looking north across Snail Shell Harbor from the town center (the Company Store (Bldg. #102A) is on the right.
Note:The harbor is being used for recreation (but prior to state park), several boats docked.
Date: Ca. 1950s

Figure III-31



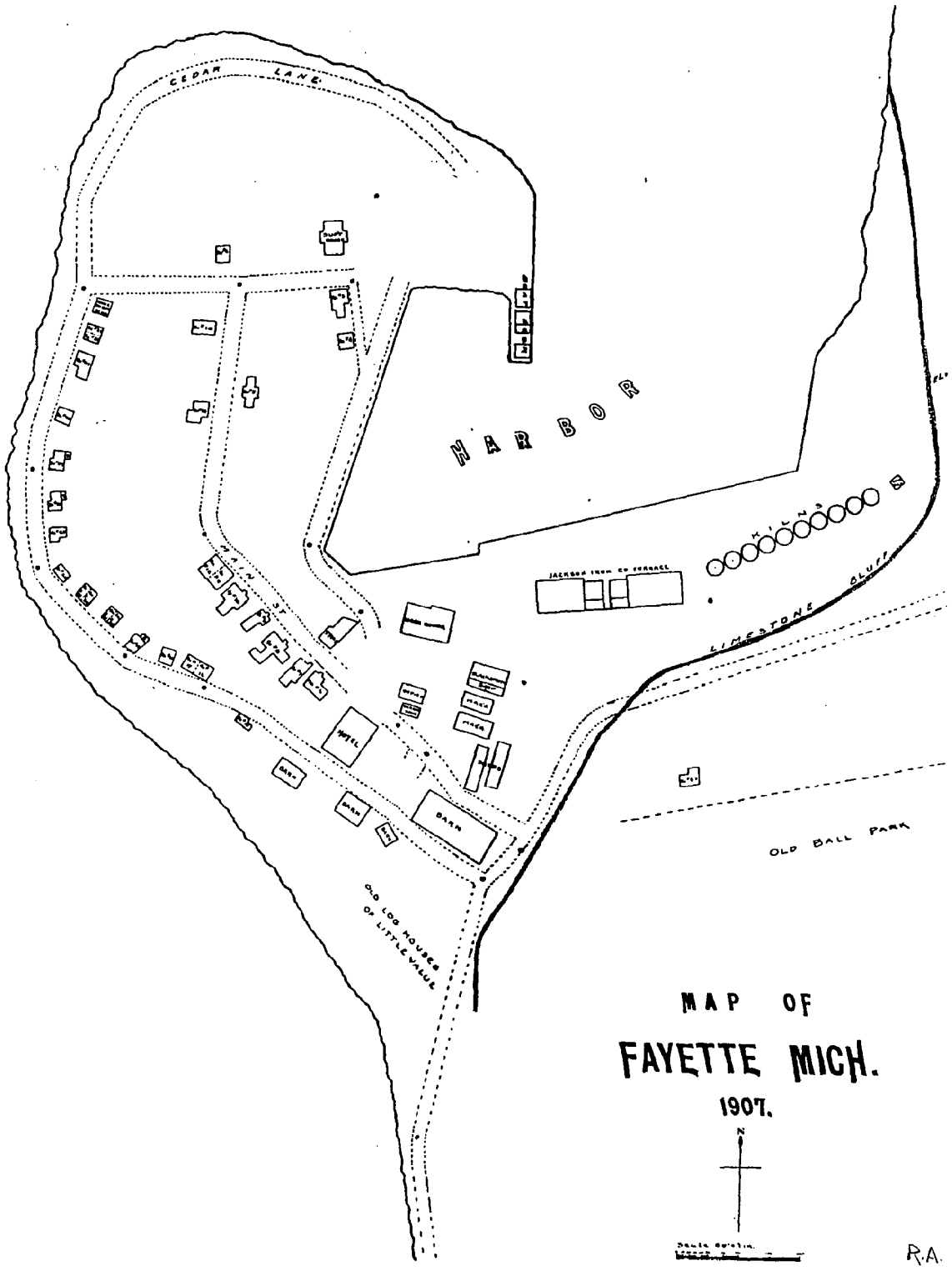
Fish shack (Building #127). Wood frame structure near original limestone quarry; built sometime during or shortly after 1907.
Note: This building (or a predecessor used by the Jackson Iron Company) appears on 1907 map and is still there during the 1961 survey, gone by 1974.
Date: ca. 1950 - 1962

Figure III-32



Aerial view of the townsite looking northeast.
Date: ca. 1953

Figure III-33



Map drawn by the Cleveland-Cliffs Iron Company, ca. 1907.

EPISODE IV: 1959 - PRESENT

The Fayette Townsite was acquired by the State of Michigan from the Meade Corporation (which was the parent company of the Escanaba Paper Company) in 1958 in exchange for timberland. In 1959, the townsite and surrounding area of land was designated a state park. Shortly following its state park designation, a park manager was appointed and a campground was developed south of the townsite. The entire townsite was in a dilapidated condition at the time of the acquisition. Historic photographs show overgrown vegetation and an extensive loss of resources since the last documentation of the townsite in 1907. The state undertook its own inventory and produced a map of townsite and measured drawings of individual buildings in 1961.

Additionally, extensive efforts were undertaken, following the state's acquisition of the townsite, to find additional information and document the Historic Fayette Townsite's history. Several interviews were conducted by the park manager's wife, (Mrs. Ike?) with former residents, visitors, and descendants of former residents of Fayette. These interviews were conducted in 1960 and 1961.

In 1974, the Michigan Department of State, History Division, began to administer the historic site in cooperation with the Department of Natural Resources. A comprehensive analysis of the townsite was undertaken, which led to the development of the 1974 *Restoration and Stabilization Recommendations for Historic Fayette Townsite* (prepared for the Department of State by the National Heritage Corporation of West Chester, Pennsylvania). The report included general stabilization and restoration treatment recommendations for all of the extant buildings within the townsite. More extensive focus was given to eight of the structures. These included: the Doctor's House (Building #1), the Elliott House (Building #9), three of the supervisor's residences (Buildings #25, 26, and 27) the Supervisors' Duplex Residence (Building #30/31), the Hotel (Building #100), and the Furnace (Building #114). Several of these stabilization and restoration recommendations were implemented by the Department of Natural Resources. Furthermore, the report also included more extensive restoration treatment recommendations for three of the townsite's buildings: the Superintendent's House (Building #1), the Town Hall (Building #101), and the Company Office (Building #108). The three buildings to which detailed study was directed were already in various stages of repair during the investigation for the 1974 report, and it was that report's task to make further recommendations and outline the continuation and completion of that work.

Construction and Alterations of Buildings

Following the acquisition of the townsite by the State of Michigan as part of the Fayette State Historic Park, several contemporary modifications were undertaken within and near the townsite. These modifications consisted of the construction of several modern structures, including: two ranger residences, a maintenance shop / park office building, a visitor contact station, and a Visitor's Center overlooking the historic townsite. Other modifications included the addition of parking lots, a camp ground, a picnic area, and a designated swimming area on Big Bay De Noc, south of the townsite. The historic county road was also rerouted and abandoned for new park vehicular routes in conjunction with the construction of the Visitor's Center.

New wood docks were constructed along a portion of the west edge of Snail Shell Harbor (in the location of historic docks) in 1988. These docks are used for pleasure craft of visitors to the park.

Industrial Buildings

Furnace Complex, (Building #114):

Stabilization treatments were undertaken at the furnace complex in 1993, and this work included: the construction of contemporary roof structures over the deteriorated portions of the complex (including the casting houses), and the construction of standing seam hip roofs on the furnace stacks themselves. These

stabilization measures were undertaken with the intent of preserving the individual structures in their current condition, and mitigating any further deterioration.

Charcoal kilns, (Buildings. #114 - 124):

One of the eleven conical kilns located east of the furnace complex (Building #115) was reconstructed to add to the interpretive experience, ca. 1965. Although it is not exactly to scale (it is slightly smaller than the original) its proportions are historically appropriate and evidence of carbon deposits on several of the bricks used in its construction suggest that they are original. Furthermore, some stabilization efforts at the ruins of the other charcoal kilns were also implemented, including a wood bracing system supporting the partial wall that is standing at Kiln #116.

Lime kiln, (Building #125):

This lime kiln, located just east of the charcoal kilns, near the dolomite quarry, was restored on its original site in the 1960s. Pre-restoration photogrpahs indicate that prior to the restoration, only the basic shape of the kiln remained intact. It is assumed that an extensive amount of original materials found on site were used in the portions of the structure that was reconstructed.

Commercial and Recreational Buildings

Town Hall, (Building #101):

This structure had experienced extensive deterioration during the later part of Episode III. However, this was one of the structures originally chosen by the state for restoration. Work was already underway when the 1974 *Restoration and Stabilization* report was prepared. The interior was partially furnished with historically appropriate furnishings and exhibits representing the period that the furnace was in operation. Following the 1974 report, the interior restoration was continued, with work still being done during the 1996 physical investigation.

Company Store and Warehouse, (Buildings #102A & B):

The park undertook stabilization and preservation measures at this structure in 1993. This work included: the reconstruction of the damaged dolomite walls to their original height, stabilization of the window and door openings, and the removal of inappropriate mortar. In addition, the walls were cleaned, tuckpointed, and capped with dolomite coping.

Machine Shop, (Building #104):

The roof of the Machine Shop was reroofed and the collapsed upper portion of the south wall was rebuilt in 1995.

Company Office, (Building #108):

In 1970, the Department of Natural Resources removed several of these non-historic alterations that were implemented in the 1940s and returned the building to its original configuration, (Figures IV-4 and IV-5). This work included the removal of the cement floor and the installation of historically appropriate wood flooring, the reconstruction of original interior partitions (including lath and plaster finish), and the installation of historically appropriate furnishings as exhibits at the first floor.

Stock barn, (Building #113):

An archeological survey of this site of the large stock barn was completed by the state in 1991.

Catholic church, (Building. #154):

The church was destroyed by a fire in 1973 and, at that time, the church property and its associated cemetery were donated to the State of Michigan by the Catholic Diocese of Marquette.

Residential Structures

Several alterations were undertaken at the individual structures throughout Fayette by the State of Michigan Department of Natural Resources from 1961 through the present. In 1961, a complete set of measured drawings of all of the extant structures at that time, was produced. In 1974, a master plan for restoration and stabilization treatment recommendations at the townsite was prepared. Most of the treatment undertaken at the townsite between 1974 and 1996 was based on the recommendations incorporated in the 1974 report.

Shortly following the state's acquisition of Fayette, one of the Supervisor's Residences along the bluff at the west edge of Snail Shell Harbor (Building #4) was remodeled to serve as the park manager's residence (Figure IV-10). Alterations included: the installation of a contemporary kitchen and bathroom; the installation of a furnace and brick chimney, which extends up the south elevation; and the installation of a hot water tank and electric water pump. The house continued to be used in this capacity until 1974, when a new park manager's residence was constructed at another location in the park, outside of the historic townsite.

Workers' Cabins, (Building Site #50):

An ongoing archeological survey was undertaken from 1987 through 1995 in the area of the former log cabin workers' dwellings. Approximately seven depressions, indicating seven cabins, were located by the archeology team.

Utility Systems

The Department of Natural Resources has drawings on file indicating that a waterline was installed from a well at the Superintendent's House (Building #1) to pumps (for public use) in the town center (this work was done ca. 1960s). One of these two pumps was located near the hotel while the other one was located just south of the Company Store / Warehouse (Building #102A and B), near the historic water pump location.

In 1985, new PVC water lines were installed in the townsite which distributed potable water to three fountains which are still present (though not in use). One of these fountains was located near the original location of the historic water pump south of the company warehouse, one is east of the hotel and one is ... By 1991, the ground water that fed these water lines was severely contaminated and service was consequently discontinued. The source of contamination is thought to be off-site agricultural (manure / animal waste) which gets into the ground water and migrates to the area of the townsite through layers of fractured dolomite that extend above the water table.

The Landscape

During the years of state ownership, the landscape was treated in the manner of most publicly-owned natural areas: roads and parking areas were developed and subsequently well maintained for visitors, wooded areas were kept at bay but largely left to follow their natural course of growth, and the open area around the townsite was managed for its turf.

Reference to the historic nature of the site was made through the unobtrusive siting of new construction (very successfully with the visitor center and less so with the townsite restrooms), the introduction of fencing that is reminiscent of the historic period, and the preservation of fruit trees that became naturalized over the years.

One of the most profound changes to take place in this period was removal of the county road that cut across the base of the peninsula. Obscuring this road and cultivating turf that blends with the townsite to the north, eliminated Fayette's land link with the rest of Michigan and introduced a museum-like quality to the locally acknowledged "ghost town." This image was further promoted with the use of traditional park signage and bollards to direct traffic. Eventually, a later phase of park ownership became apparent. The bollards were removed and the site was interpreted as a historic site. Some features (like the site of the repair house) were delineated with fencing, and interpretive signage was introduced. Today, there is no mistaking the site's roots as a state park, nor its on-going popularity as a historic and recreational site.

Circulation Systems

The 1963 topography map created from aerial photography indicates that there was a parking area east of the hotel. This parking area was abandoned in 1974 woth completion of the new visitor center and parking lot.[1] In 1974, the portion of the historic county road that runs adjacent to the east edge of the townsite was abandoned and traffic rerouted in conjunction with the construction of the Visitor's Center. Furthermore, as of 1974, automobile traffic was restricted from the townsite area, and the existing circulation system has supported only pedestrian traffic since (with the exception of small service vehicles).

Vegetation

During this 37 year period, the two forest groups were allowed to evolve as nature intended. The sugar maple/birch woods on the west knoll and to its north have persisted, with further encroachment of sugar maple where conditions allow. On the south side of the knoll a cedar/birch community predominates, with an edge of dogwood and sumac on its lower reaches. Apples are apparent here as well. The cedar/birch community is repeated on the lakeshore and on the steep terrain on the east side of the harbor beyond the kilns. In the vicinity of the kilns, birch is the dominant species, but sugar maples are just beginning to invade. At the superintendent's house, a couple of maples shade the house, and large lilacs and apple trees remain.

In general, during this period a constant pattern of vegetation has been retained, although the relationship of species has changed as succession continues, rarely checked by fire and windthrow.

During the last several years, the Fayette State Historic Park has started to reverse the trend of the vegetation reclaiming areas of the townsite. Areas of the townsite, especially near the historic wood-frame buildings, have been scrubbed. The removal of excessive vegetation has allowed proper ventilation around these buildings and thus mitigates detrimental moisture accumulation in the wood structures.

Episode IV Endnotes:

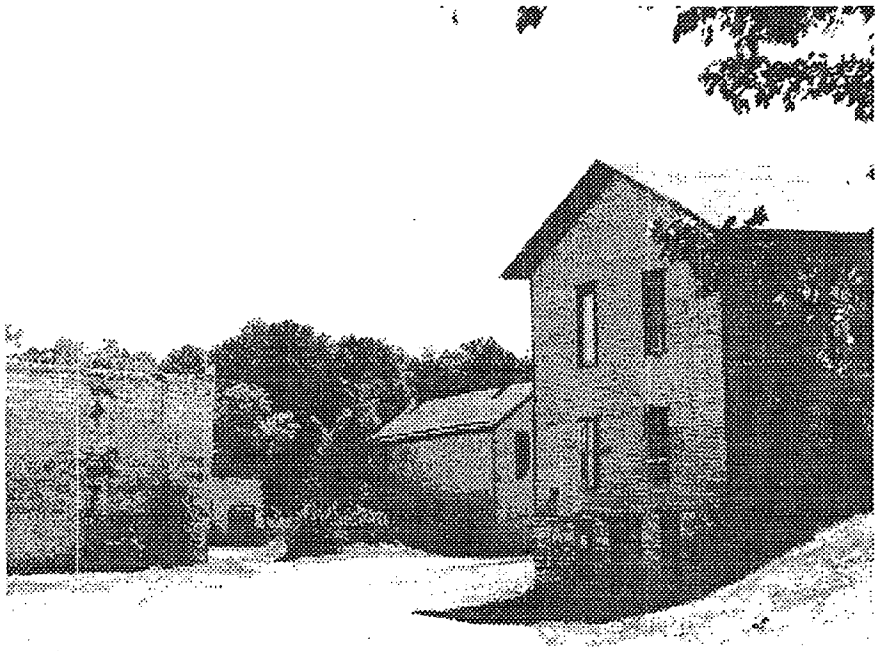
[1] Tom Friggens, Conversation with Barbara Wyatt, 12-11-96.

Photographic Chronology of Episode IV

Figure IV-1

View looking west into the townsite from the county road.
Note: The wood bollards alongside the road and the signs were installed by the Fayette State Historic Park.
Date:1959 - 1970

Figure IV-2

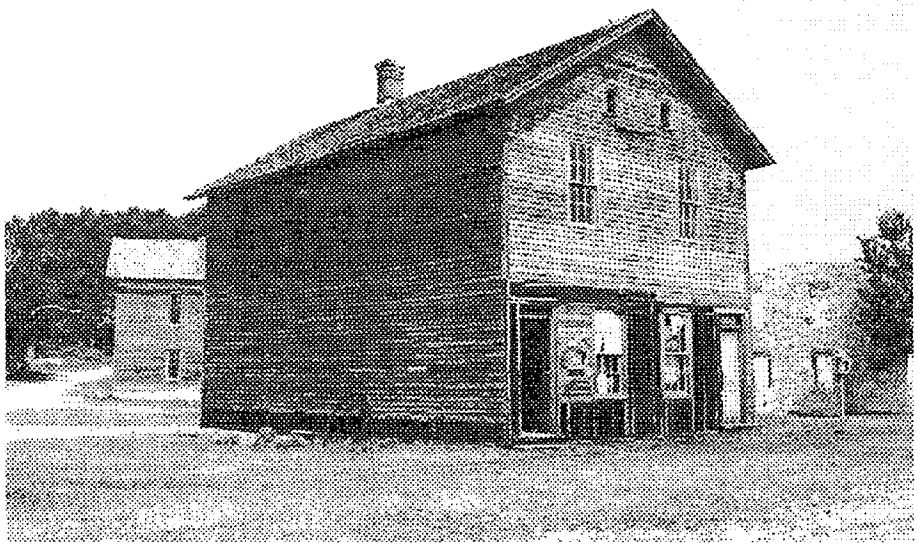


View looking northeast into the town center.
Note: Paint (presumably applied shortly after 1907) still on structures, can see the advertisement painted on the north elevation of the Company Office (Bldg #108), this photograph was taken prior to any stabilization work at the Company Store / Warehouse (Bldgs. #102A & B).
Date: ca. 1960

Figure IV-3

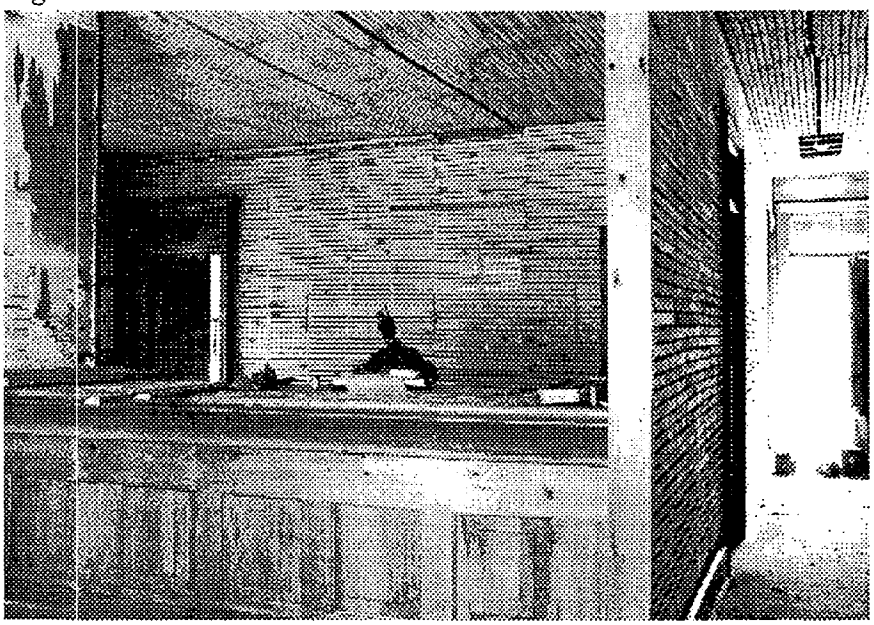
View looking northwest into the town center.
Note: This is prior to the removal of the overhead door and other alterations at the east elevation of the Company Office, (Bldg. #108).
Date: ca. 1959 - 1970

Figure IV-4



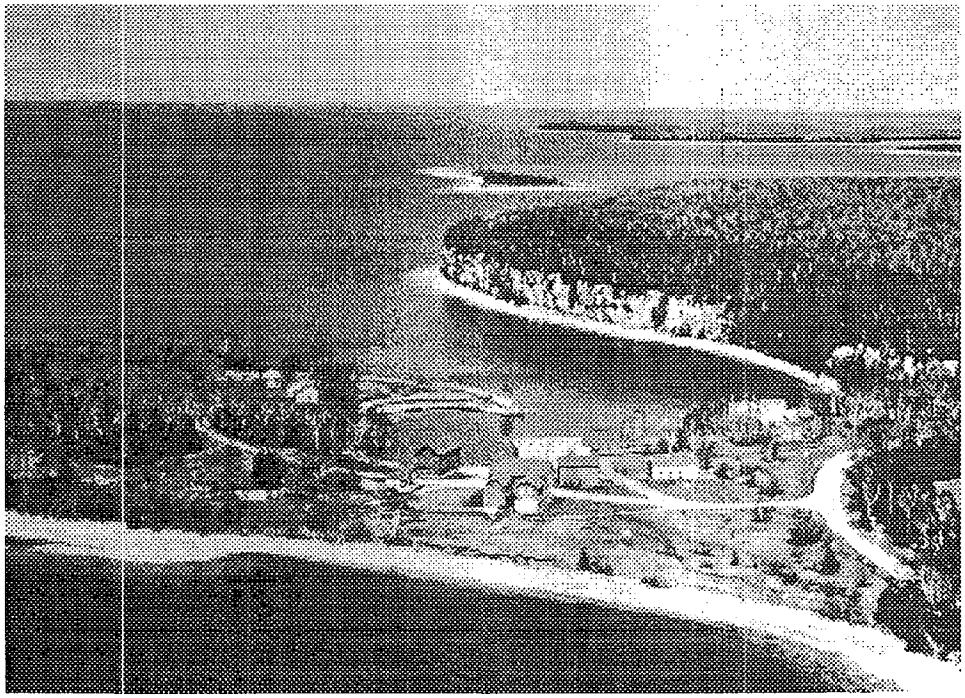
View of the Company Office, (Bldg. #108) during restoration work.
Note: The east elevation has been returned to its original configuration and the deteriorated sill has been replaced.
Date: Ca. 1970

Figure IV-5



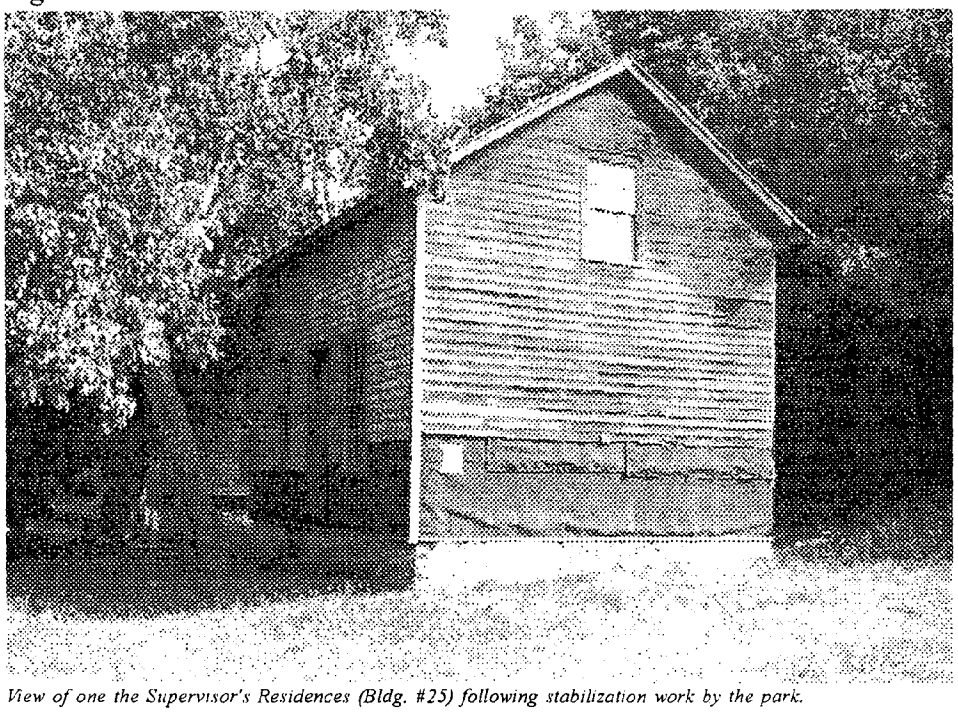
View of the interior of the Company Office (Bldg. #108) during the 1970 renovation.
Note: The original partitions have been reconstructed, lath installed, and new wood flooring installed.
Date: ca. 1970

Figure IV-6



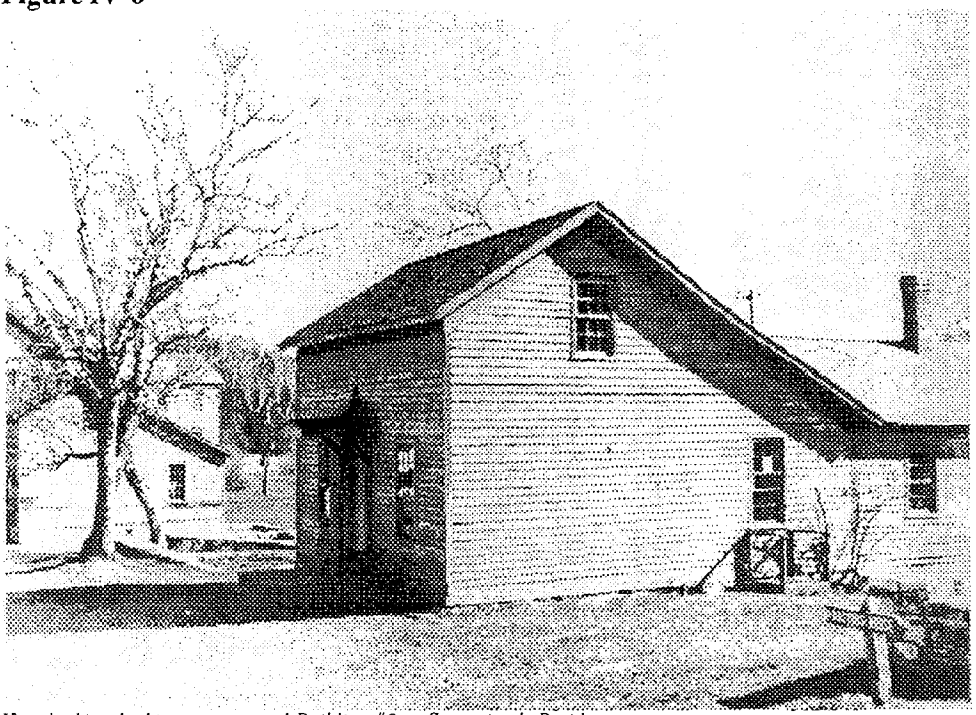
Aerial view of the townsite looking north.
Note: This photo is following acquisition of the townsite by the park but prior to the reconfiguration of the county road. Note the additional road loop at the southeast corner of the townsite.
Date: ca. 1959 - 1974

Figure IV-7



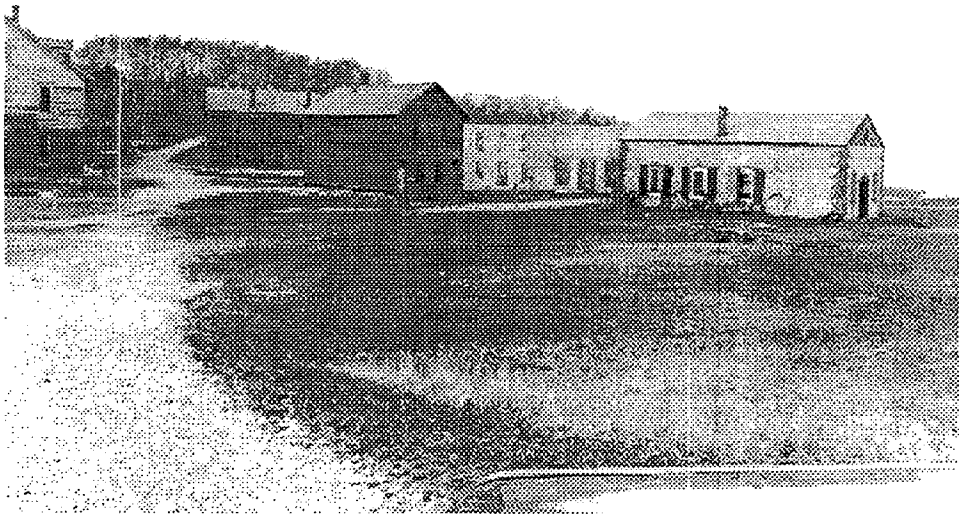
View of one the Supervisor's Residences (Bldg. #25) following stabilization work by the park.
Note: The deteriorated sill plate has been replaced, awaiting new clapboard installation.
Date: ca. 1960 - 1970

Figure IV-8



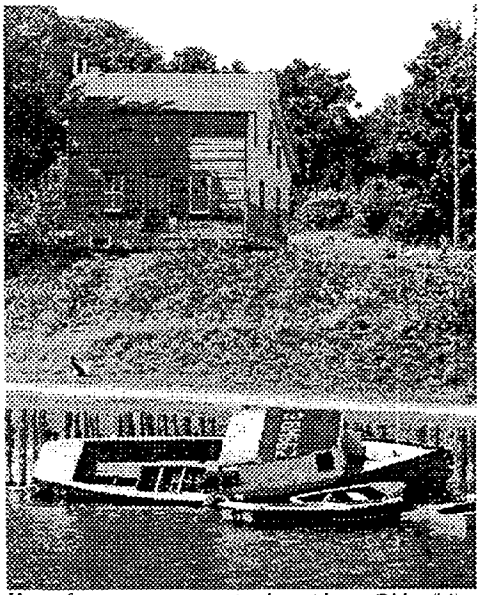
View looking looking east toward Building #9, a Supervisor's Residence.
Note: The original porch vestibule has been removed and replaced with an entrance hood, other alterations by the park include signage and a viewing platform at one of the windows on the west elevation.
Date: ca. 1959 - 1970

Figure IV-9



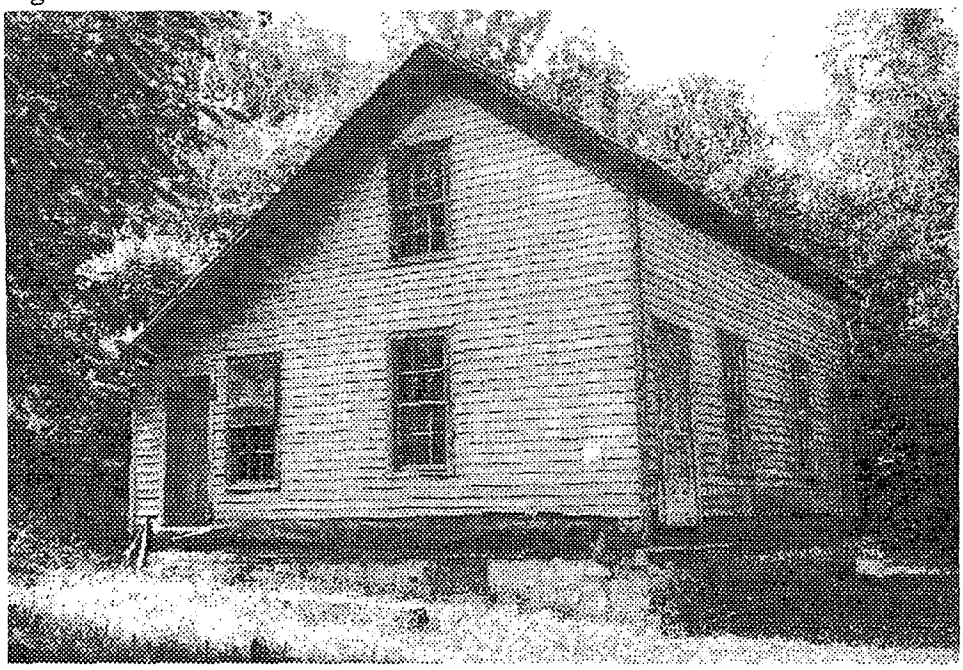
View looking northwest into the town center.
Note: Several structures have been lost to deterioration; the reconfiguration of the fenestration at the east elevation of the Company Office (Bldg. #108) has already taken place.
Date: ca. 1970 - 1974

Figure IV-10



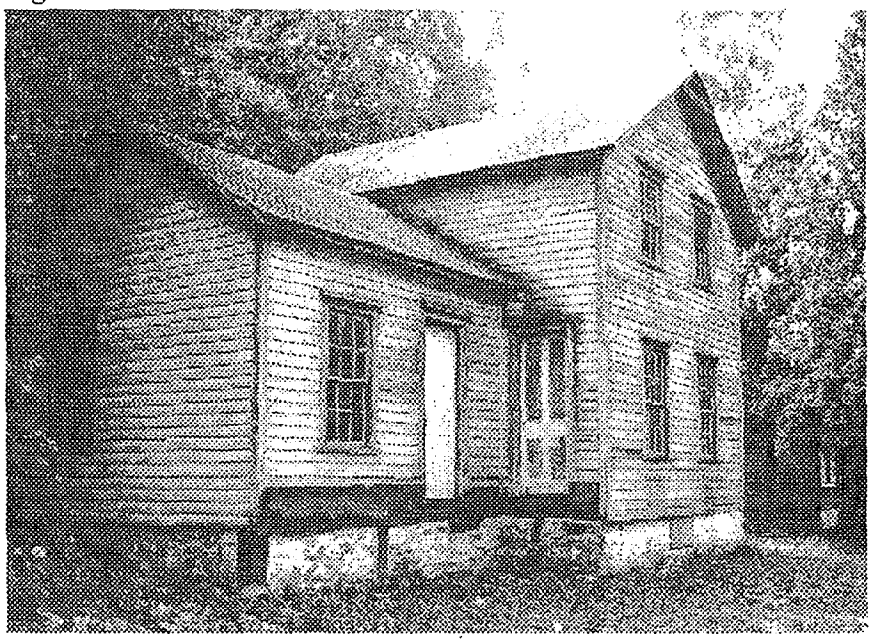
View of a company supervisor's residence (Bldg. #4)
Note: The docks have deteriorated extensively; the sill plate and subsequent clapboard replacement has taken place at the building. The chimney has been constructed, part of the alterations to use it as the park manager's residence.
Date: ca. 1960 - 1970s

Figure IV-11



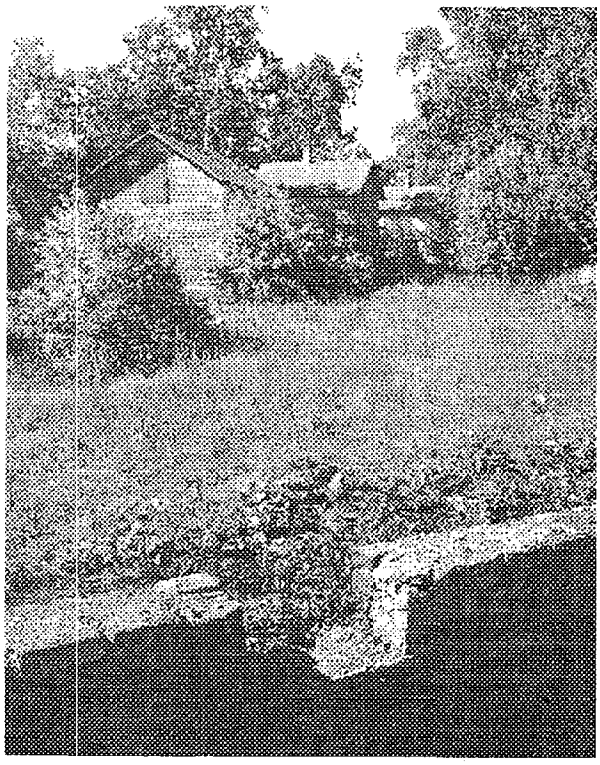
View of the only remaining Supervisors' Duplex Residence (Bldg. #30/31). (There were originaly four duplexes constructed at Fayette.
Note: The deteriorated sill plate has been replaced by the park; awaiting new clapboard siding.
Date: ca. 1960 - 1970

Figure IV-12



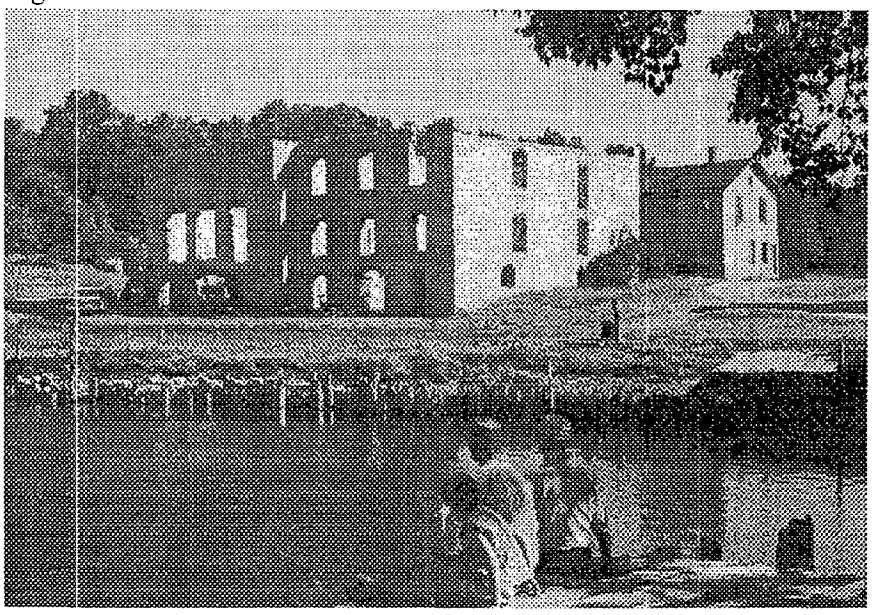
View of Building #27, a Supervisor's Residence.
Note: Some stabilization work has been undertaken by the park.
Date: ca. 1970s

Figure IV-13



View looking toward rear of Buildings #25 and #26.
Note: Deteriorated foundation in foreground;
Date: ca. early 1960s

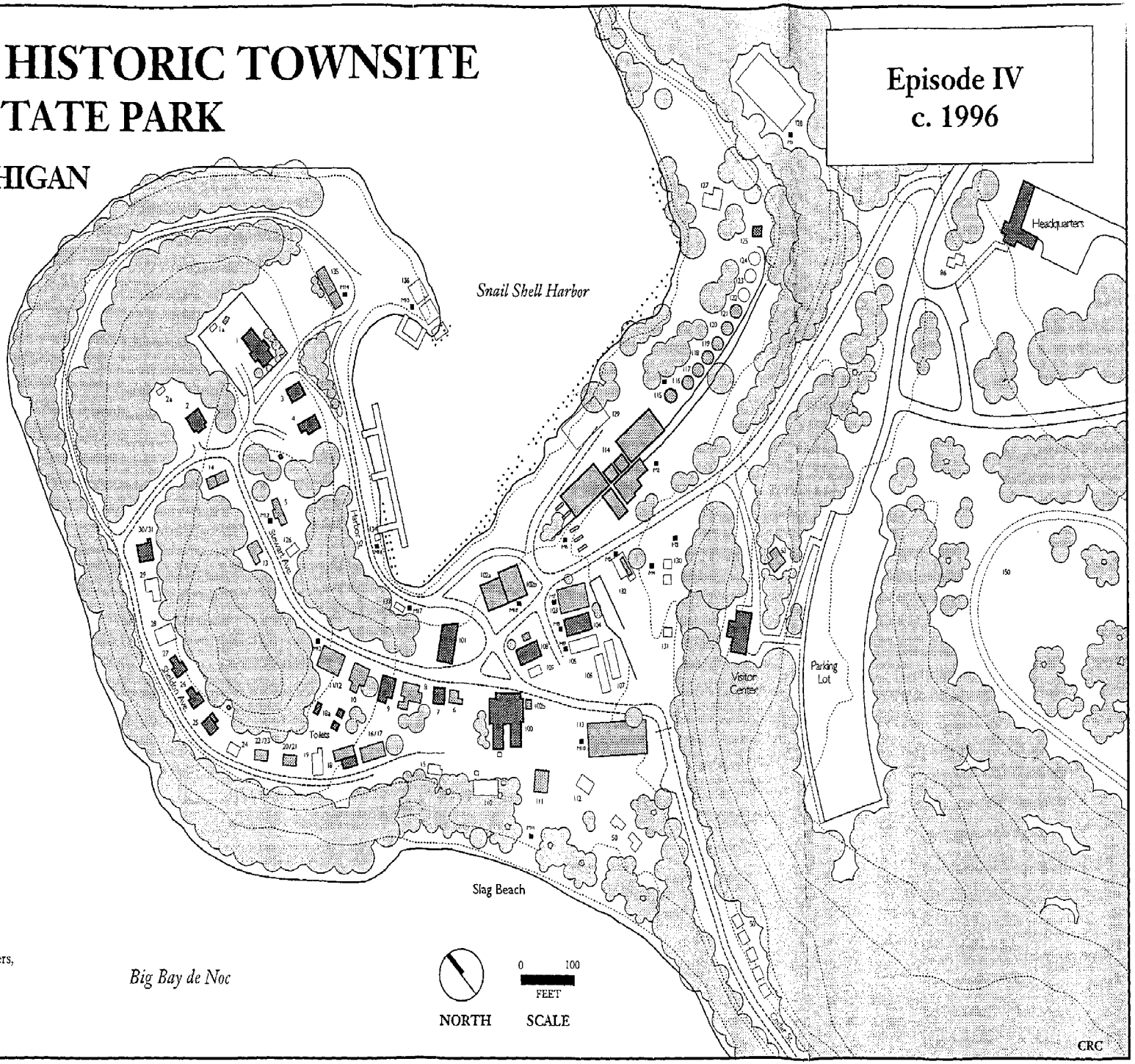
Figure IV-14



View looking southeast across the harbor toward the Company Store and Warehouse (Bldgs. #102A & B)
Note: Some influences of the park are evident, including picnic tables. This photograph was taken prior to the restriction of automobile traffic in the townsite.
Date: ca. 1960s

FAYETTE HISTORIC TOWNSITE
FAYETTE STATE PARK
GARDEN, MICHIGAN

Episode IV
c. 1996



Structures
- Extant building
- Building ruins
- Extant foundations
- Site only

Circulation
- Improved road
- Road
- Path

Vegetation
- Extent of trees
- Extent of shrubs

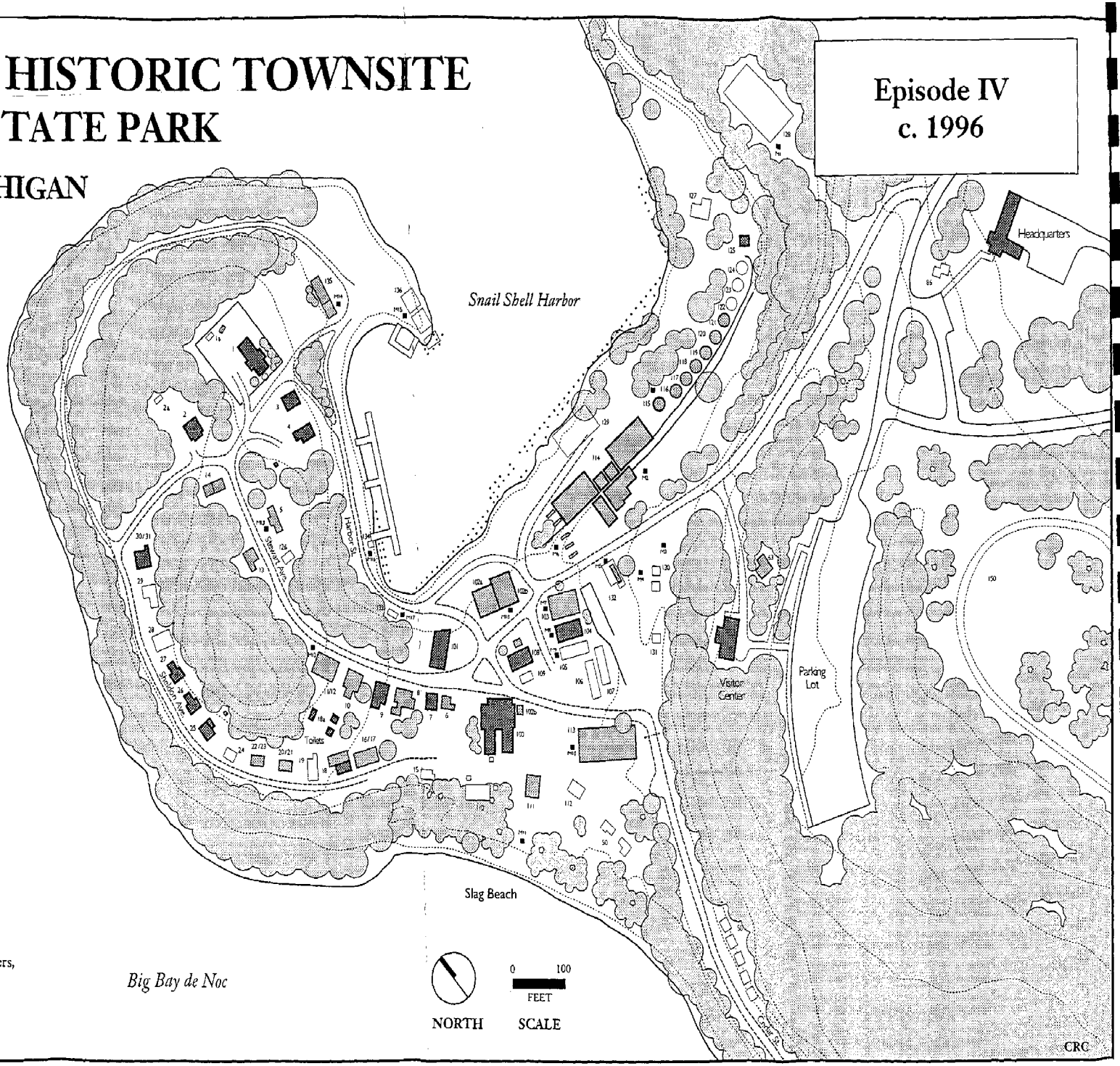
Markers

For key to building numbers, see other side of map.

12.12.96

FAYETTE HISTORIC TOWNSITE
FAYETTE STATE PARK
GARDEN, MICHIGAN

Episode IV
c. 1996



Structures
- Extant building
- Building ruins
- Extant foundations
- Site only

Circulation
- Improved road
- Road
- Path

Vegetation
- Extent of trees
- Extent of shrubs

Markers

For key to building numbers, see other side of map.

12.12.96

Building Chronology

Categories of existing buildings:
Category 1: Extant buildings that are open to the public.
Category 2: Extant buildings that are not open to the public.
Category 3: Extant building foundations (ruins)
Category 4: Sites of former buildings.

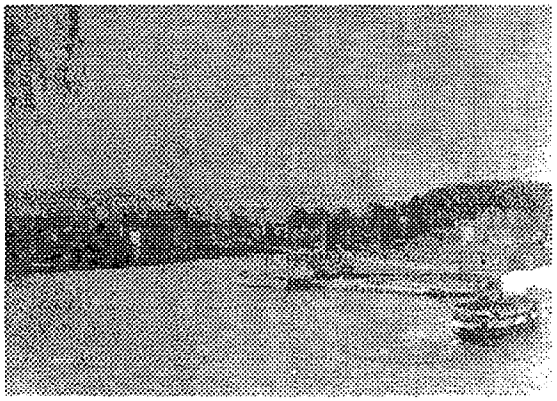
Bldg. #	Building Name	Category	Date existed
1	Superintendent's House	1	ca. 1867 - 1869 through present
2	Doctor's House	1	ca. 1867 - 1869 through present
3	Supervisor's Residence	2	ca. 1867 through present
4	Supervisor's Residence	2	ca. 1867 through present
5	Boarding House	3	ca. 1867 through ca. 1950
6	Supervisor's Residence	3	ca. 1867 through ca. 1950
7	Supervisor's Residence	1	ca. 1867 through (between 1907 and 1961)
8	Supervisor's Residence	3	ca. 1867 through (between 1907 and 1961)
9	Supervisor's Residence	1	ca. 1867 through (between 1907 and 1961)
10	Supervisor's Residence	3	ca. 1869 through (between 1907 and 1961)
11/12	Supervisors' Duplex Residence	3	ca. 1869 through (between 1907 and 1961)
13	Supervisor's Residence	3	ca. 1869 through (between 1961 - 1974)
14	Supervisor's Residence	3	ca. 1869 through (between 1907 and 1961)
15	Supervisor's Residence	4	ca. 1869 through (between 1907 and 1961)
16/17	Supervisors' Duplex Residence	3	ca. 1869 through (between 1907 and 1961)
18	Supervisor's Residence	2	ca. 1869 through present
19	Supervisor's Residence	3	ca. 1869 through (between 1907 and 1961)
20/21	Supervisors' Duplex Residence	3	ca. 1870-1872 through (between 1907 and 1961)
22/23	Supervisors' Duplex Residence	3	ca. 1870-1872 through (between 1907 and 1961)
24	Supervisor's Residence	4	ca. 1868 - 1878 through (between 1907 and 1961)
25	Supervisor's Residence	2	ca. 1868-1878 through present
26	Supervisor's Residence	2	ca. 1875 through present
27	Supervisor's Residence	2	ca. 1875 through present
28	Supervisor's Residence	3	ca. 1870 -1872 through (between 1907 and 1961)
29	Supervisor's Residence	3	ca. 1870 - 1872 through (between 1907 and 1961)
30/31	Supervisors' Duplex Residence	2	ca. 1870 through present
32	Supervisor's Residence	4	ca. 1870 through (before 1907)
50	Workers' Cabins	4	ca. 1876 through ca. 1907
63	Supervisor's Residence	3	ca. 1879 through (between 1907 and 1961)
86	Supervisor's Residence	4	ca. 1879 through 1974 (torn down for visitor's center)
100	Hotel (Shelton House)	1	ca. 1867,1871,1882 through present
101	Town Hall	1	ca. 1871,1879,1882 through present
102A	Company Store	3	(first wood structure 1867 through 1886) stone: 1886 through 1922 (ruins remain)
102B	Company Warehouse	3	1870 through 1922 (ruins remain)
103	Blacksmith Shop	3	1867 through (before 1922)
104	Machine Shop	1	ca. 1868-1870 through present
105	Carpenter's Shop	3	First:1869-1879; second: 1879 through (before 1922)
106	Shed	4	ca. ? through (between 1907 and 1961)
107	Shed	4	ca. ? through (between 1907 and 1961)
108	Company Office	1	ca. 1869 through present
109	Barber Shop	4	ca. 1870-1872 through (between 1907 and 1961)
110	Small stock barn	4	ca. ? through (between 1907 and 1961)
111	Small stock barn	3	ca. ? through (between 1907 and 1961)
112	Small stock barn	4	ca. ? through (between 1907 and 1961)
113	Large stock barn	3	ca. 1869 through (between 1907 and 1961)
114	Furnace Complex	1	1867 through present
115-124	Charcoal kilns	1	1870 through present, deterioration, one reconstructed
125	Lime Kiln	1	1867 through 1881, 1882 through (between 1961 and 1974), reconstructed: 19__ through present
126	Garage	4	ca. (1940-1950) through (between 1961 and 1974)
127	Fish Shack Building	4	ca. 1900-1907 through (between 1961 and 1974)
128	Hay Barn	4	ca. ? through (after 1907)
129	Stock House (Dock Building)	4	ca. 1869 through (before 1907)
130	Grainaries	4	ca. ?
131	Jail	4	ca. 1879 through ca. 1973
132	Engine (round) house	4	ca. 1872 through (between 1900 - 1906)
133	Ice House	4	ca. 1867 through ca. 1900
134	Grain Elevator	4	ca. ? through (before 1907)
135	Sawmill	4	ca. 1868, rebuilt 1871 through (before 1907)
136	Dock Sheds (3)	4	ca. 1870 through (between 1907 and 1961)
150	Racetrack / ballfield	4	ca. ? through ?
154	Catholic Church	3	First one: 1877 - 1879; Second: ca. 1879 through 1973

Part E:

Analysis of Existing Conditions and Treatment Recommendations

Comparison Photographs of Existing Conditions

Figure 1



View looking southwest across Snail Shell Harbor toward the townsite, ca. 1900 - 1907.

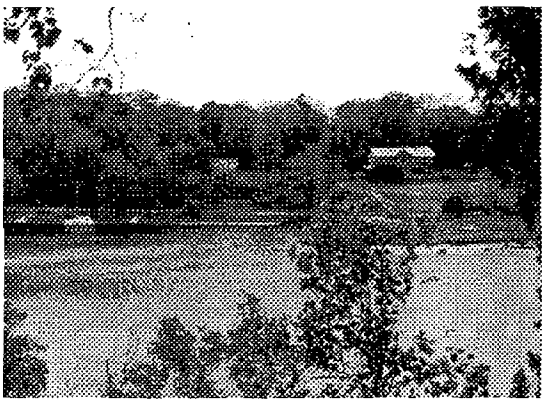
Figure 2

View looking southwest across Snail Shell Harbor toward the townsite, 1996.

Figure 3

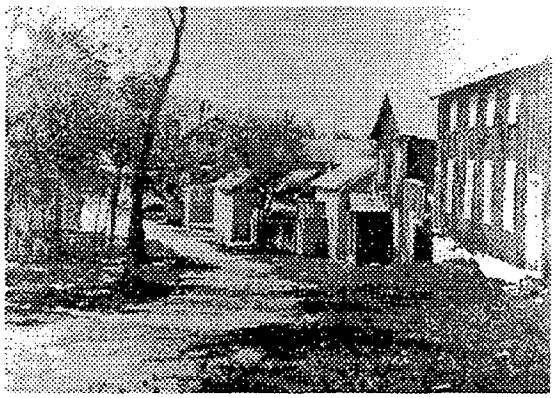
View looking west across Snail Shell Harbor toward the Superintendent's House (Building #1), ca. 1900 - 1907.

Figure 4



View looking west across Snail Shell Harbor toward the Superintendent's House (Building #1), 1996.

Figure 5

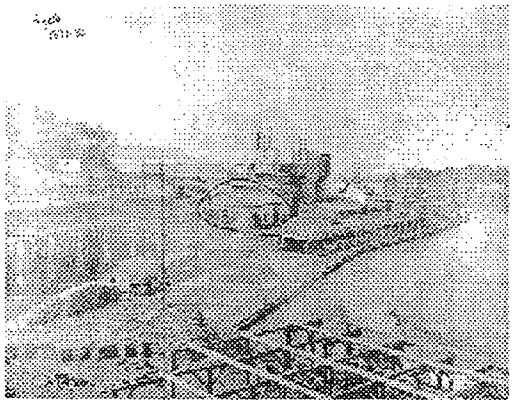


View looking southeast down Stewart Avenue toward the town center, ca. 1907.

Figure 6

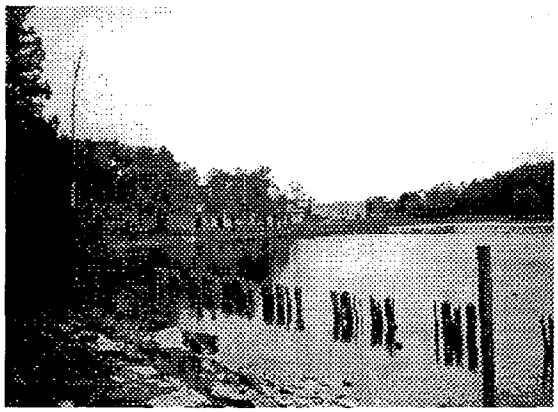
View looking southeast down Stewart Avenue toward the town center, 1996.

Figure 7



View looking southwest toward the furnace complex, ca. 1870s.

Figure 8



View looking southwest toward the furnace complex, 1996.

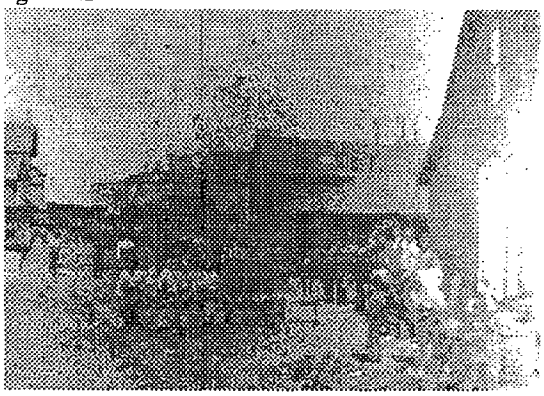
Figure 9

View looking west toward the town center, ca. 1922 - 1930.

Figure 10

View looking west toward the town center,1996.

Figure 11



View looking north in the town center, ca. 1870 - 1891.

Figure 12

View looking north in the town center, 1996.

Part E: Analysis of Existing Conditions and Treatment Recommendations

SUMMARY OF CURRENT PRESERVATION TECHNIQUES

Current preservation techniques are most often based upon guidelines that have been set forth by the United States Secretary of the Interior. The Secretary of the Interior is responsible for establishing professional standards and providing advice on the preservation and protection of all cultural resources listed on or eligible for the National Register of Historic Places. Subsequently, the Secretary of the Interior has established Standards for four distinct, but interrelated, approaches to the treatment of historic properties. These four approaches are: Preservation, Rehabilitation, Restoration, and Reconstruction, and are the most authoritative and comprehensive standards that are currently available for use and reference by preservationists and, as such, are the most appropriate reference for establishing the treatment strategy for the Fayette Historic Townsite. Below are the definitions of the four approaches that have been established by the Secretary of the Interior.

Preservation is defined as the act or process of applying measures necessary to sustain the existing form, integrity, and materials of a historic property. Work, including preliminary measures to protect and stabilize the property, generally focuses upon the ongoing maintenance and repair of historic materials and features rather than on extensive replacement and new construction. New exterior additions are not within the scope of this treatment, however, the limited and sensitive upgrading of mechanical, electrical, and plumbing systems, and other code-required work to make properties functional, is appropriate under this treatment.[1] Existing vegetation would be retained, with pruning and selective removal used as maintenance tools to promote the health of all vegetation. Landscape features, such as fences and paths, would be retained and repaired. In general, the landscape would be interpreted as an expression of the evolution of needs, preferences, and, to varying degrees, the course of nature.

Rehabilitation is defined as the act or process of making possible a compatible use for a property through repair, alterations, and additions while preserving those portions or features which convey the historical and cultural values of the architecture and landscape.[2]

Restoration is defined as the act or process of accurately depicting the form, features, and character of a property as it appeared at a particular period of time by means of the removal of features from other periods in its history, and reconstruction of missing features from the restoration period. The limited and sensitive upgrading of mechanical, electrical, and plumbing systems, and other code-required work to make properties functional, is appropriate within a restoration project.[3]

Reconstruction is defined as the act or process of depicting, by means of new construction, the form, features, and detailing of a non-surviving site, landscape, building, structure, or object for the purpose of replicating its appearance at a specific period of time and in its historic location.[4]

Choosing the appropriate treatment, or set of treatments, for a historic property as large and diverse as Fayette is critical. As stated by the Secretary of the Interior, "This choice always depends on a variety of factors, including the property's historical significance, physical condition, proposed use, and intended purpose."[5] With respect to the Fayette Historic Townsite, all of these factors, as well as many others, have been examined in order to properly choose the appropriate treatment for the townsite.

STATEMENT OF TREATMENT STRATEGY

The goal of the Michigan Department of State (Michigan Historical Center) and the Department of Natural Resources is to continue to preserve the structures and landscape at Fayette. They state that, "this means keeping original materials in place wherever possible. It means respecting changes that have happened over time instead of attempting to restore buildings or the landscape to a particular point of time. It means reconstructing only such features as are essential to the interpretation of the site." Furthermore, the DNR and the MHC desire to interpret Fayette as an industrial community in a unique environment - remote, rural, scenic - and to help visitors appreciate the role of the Great Lakes, a natural harbor, iron, dolomite [bluffs], woodlands, and time in shaping Fayette.[6] The two agencies have stated that:

> There are few places in the United States where today's visitor can see a late-nineteenth-century iron-smelting company town in a natural setting that has changed little from the time of its peak operation. While there is much preservation work to be done at the site, it is remarkable that so many of the structures reflecting industry, commerce, community and home life have survived intact. Our mission is to continue the preservation of those structures and interpret them, their cultural and natural setting and the history of the community they represent.[7]

Furthermore, the museum program guidelines prepared for Fayette state that:

> While interpretation focuses on an iron-smelting town that reached its peak in the 1880s, it must place the town in the context of the Garden Peninsula, which has been home to people from prehistoric time to the present. Fayette and its harbor form one of Michigan's richest archeological sites, and both work and interpretation must take this into account.[8]

Based on the desires of the Michigan Department of State and the Department of Natural Resources, and the existing conditions of the townsite, it is recommended that a *preservation* treatment approach be undertaken for the entire site in order to maximize the potential treatment, and to provide the most comprehensive interpretation of the site that is practical. Although preservation, with its respect for the evolution of the townsite, appears to be the most appropriate overall approach, the inclusion of select treatment approaches for specific/targeted parts of the townsite are also recommended. Therefore, it is recommended that a treatment strategy that emphasizes preservation as the treatment approach be applied to the site and structures, and that limited reconstruction and rehabilitation also be applied, where necessary, to provide a fuller interpretive experience of the townsite.

Since its acquisition of the townsite in 1959, the State of Michigan has already implemented measures that fall within each of the four approaches set forth by the Secretary of the Interior. Examples of each of the implemented treatment approaches have been successful. *Restoration* has been implemented in the restoration of several spaces within the interiors of some the townsite's buildings to an appearance that is historically appropriate to a particular period of time, that is, when the furnace town was in operation, 1867 - 1891. These spaces add to the visitor's interpretive experience of the town. At the same time, *preservation* treatments, especially the stabilization of deteriorated architectural fabric and the replacement, in-kind, of deteriorated material, have been essential to maintaining the current integrity of the townsite. *Preservation* has also been the consistent treatment utilized with respect to the landscape. On the other hand, *rehabilitation* has been utilized in the interior conversion of existing buildings into exhibit space (this has included the restoration of architectural fabric). Finally, *reconstruction* has been utilized in the treatment of two entire structures, one being one of the conical charcoal kilns east of the furnace and the other being the lime kiln (located near the dolomite bluff, east of the townsite). Reconstruction was also implemented in the treatment of portions of other structures, including : the reconstruction of the upper, deteriorated portions of the walls of the Company Store and Warehouse (Buildings #102A & B), and the deteriorated roof and upper portion of the south wall of the Machine Shop (Building #104).

Based on the success of the application of a variety of treatments to the townsite to date, it is easy to realize that only a combination of approaches should be continued to a limited extent at Fayette. However, the built structures and the natural landscape of Fayette make up a large and diverse resource which requires some level of treatment coordination to make it comprehensible to the visitor and historian alike. A "blended" treatment

approach is necessary, emphasizing preservation, but incorporating subsets of the three other approaches within it. It is important to note that each of the treatment approaches has been carefully considered for each particular element of the townsite, and is not being randomly applied. Appropriate treatment deviations within the overall preservation approach will be limited to those treatments that significantly add to the interpretation of the townsite. One deviation will include the reconstruction of one of the worker's cabins (Site #50), which originally comprised the majority of the residential structures at Fayette, and of which none remain. Another deviation consists of the re-establishment of the duplex configuration at the interior of the Supervisors' Duplex Residence (Building #30/31), which was converted into a single-family residence during the early part of this century. Additional deviations include: the restoration of the routes of the historic streets; the application of a street surface treatment that mimics slag; and the elimination of hard edges in order to give the streets a feathered, uneven appearance.

The cultural landscape at Fayette presents a spectacular and diverse resource, with treatment needs ranging from interpretation to repair to management. The cultural landscape consists of the total panoply of cultural remains and the natural environment. The relationship of the two gives the site meaning and vitality, and explains changes over time. A preservation ethic should prevail regarding the cultural landscape, as well as its components. In general, treatment measures applied to the cultural landscape are designed to improve circulation and pedestrian and wheelchair access, promote the health and diversity of vegetation, and respect and interpret site features. Treatments also are designed to accomplish the following interpretative goals:

- expose the connection of Fayette to the surrounding region
- reveal cultural landscape patterns
- deliver consistent and clear information by distinguishing between the historic and contemporary

Furthermore, a diversified approach to the treatment of Fayette, again with *preservation* as the overall goal, will enhance and meet the interpretive goals established by the Fayette State Historic Park. According to the ten-year model museum program's recommendations set forth by the Department of State, interpretation of the site has been categorized into interpretive zones. It states that:

> The chief goal of interpretation at Fayette, identified by the National Heritage Corporation in 1974, remains valid. It is 'To instill in the visitor a vivid impression of life in a late 19th century industrial community.' The major interpretive theme reflects the site's physical evidence: Fayette as a company town. Principal sub-themes are 1) the industrial/economic story of Fayette and 2) Fayette's society. A third sub-theme, resulting from recent archeological evidence, is prehistoric habitation of the site.
>
> The museum program comprises five general interpretive zones: Visitor Orientation / Services (Visitor Center); Industrial (furnace complex including kilns, quarry and dock pilings; workshops; company office; stock barns; slag beach); Commercial (hotel; town hall; company store); Residential (residences); and Prehistory (via proposed interpretive signage along Cedar Lane).[9]

The five "interpretive zones" defined in the ten year museum program recommendations should be modified to reflect the analysis and recommendations set forth in this report. Instead of the five zones mentioned, there should be four zones that are geographical delineations:

- Zone 1 is the Visitor Orientation Zone
- Zone 2 is the Industrial Area
- Zone 3 is the Commercial Core
- Zone 4 is the Residential Area

The four episodes of Fayette's history are temporal overlays of the geographical zones, although each zone may not reflect all episodes. For example, Episode III is barely represented, while Episode I (prehistoric sites) is represented

in all four zones. Physical investigation of the site included the analysis of historic and existing features in all of the listed zones.

Four interior Treatment Areas have also been determined for the continued treatment of extant buildings in the townsite. It is important to note that these Treatment Areas are not dependent on the four geographical zones listed above, instead, they reflect both the previous treatments undertaken at each building and the interpretation plan for each building. Additionally, several buildings may have more than one Interior Treatment Zone. For example, the first floor of the Company Store (Bldg. #108) is a Treatment Area A while the second floor is currently Treatment Area D. The definition of each Interior Treatment Zone is as follows:

- Interior Treatment Zone A:
  Includes the interior of those buildings or rooms within buildings that have or will receive historically accurate restoration to the period of significance (This zone of treatment is only recommended where we have the information to accurately replicate missing elements.)
- Interior Treatment Zone B:
  Includes the interior of those buildings or rooms within buildings that have or will receive historically appropriate rehabilitation and will receive the installation of historically appropriate furnishings.
- Interior Treatment Zone C:
  Includes the interior of those buildings or rooms within buildings that have or will receive historically appropriate rehabilitation to serve as a backdrop (surround) for historically appropriate exhibits.
- Interior Treatment Zone D:
  Includes the interior of those buildings or rooms within buildings that will receive general preservation / stabilization treatment.

Based on the physical investigation, it appears that those interiors that have already received extensive treatment, fall under Interior Treatment Area A or B. It should be noted that based on the gathering of new information and / or funding, Interior Treatment Areas may change. By applying this categorization of treatment into four distinct areas or approaches, Fayette can still have the presence of the past exist in many of its spaces with a minimum loss of historic fabric. This also provides the greatest amount of flexibility to respond to future changes in funding and interpretative efforts.

In conclusion, it is through a diversified approach that a more comprehensive impression of this former industrial town can be achieved. The following treatment recommendations contained in this report, therefore, are based on providing a comprehensive interpretation of the townsite, while, at the same time, preserving its historic integrity and respecting those changes that have taken place and acquired significance in their own right. The preservation treatment strategy emphasizes the importance of saving that historic fabric which remains intact throughout the townsite. At the same time, incorporating actions to provide better public visitation, ease of maintenance, and that aid in the interpretation of the site, while not destroying historic fabric, are strongly encouraged.

CULTURAL LANDSCAPE ANALYSIS

Site Circulation

Background

Besides the extant buildings, circulation routes through the site provide the most prominent definition of the configuration and function of the components of Fayette. Sensitive treatment of the roads and paths is critical to portray their historic relevance and to provide a safe and comfortable walk through the townsite. For this reason, access to and through the Fayette townsite is one of the most challenging aspects of site use and development. The analysis of circulation will consider routes, surface treatments, and accessibility in light of historic patterns. A preservation philosophy should guide the treatment of paths and streets in the townsite to the

extent possible. However, some situations warrant special treatment philosophies that may diverge from the preservation approach.

Specific Existing Conditions and Treatment Recommendations

Issue 1: The site is steep and many parts of the site are inaccessible to disabled people. Surface treatments (gravel, earth, some remnants of slag) make access by disabled people difficult or impossible. Some road grades are too steep for wheelchair access and uncomfortably steep for people with ambulatory problems.

Goal: Provide physical access where possible, visual access where impossible.

Treatment: People with disabilities should be able to travel easily on the routes shown on the Universal Accessibility map. These routes need to be graded to eliminate ruts and to improve drainage, and surfaced as recommended below. Grades need to be 8% or less.

Issue 2: There is no well-established parking for disabled visitors near the townsite.

Goal: To develop parking spaces for disabled visitors in a location convenient to the townsite.

Treatment: A parking lot for six vehicles should be built off the old county road to the west of the townsite to accommodate disabled visitors. Archeological remains of laborers' cabins should be avoided. The parking lot and the road leading from the parking lot to the townsite should be of a grade and surface amenable to wheelchair access.

Issue 3: According to an analysis of historic photographs and limited archeological testing, roads historically were surfaced either in slag from the furnace or crushed red limestone. The slag appears as a dark color in historic photographs and the limestone and unsurfaced areas appear light. Mottled surfaces probably are a combination of materials. The photographs also indicate that road edges were irregular. See *Circulation Systems*, Episode II for an explanation.

Remnants of the historic road fabric remains and should be preserved where preservation will not pose safety hazards to pedestrians. Particular attention should be paid to the preservation of slag surfaces because the material may be difficult to obtain. Surfaces that need upgrading should be treated to resemble the historic gravel.

Goal: Preserve historic remnants of road surface treatments, unless their preservation poses hazardous conditions to pedestrians. Surface roads that have worn or rough surfaces with a gravel material that resembles the historic fabric.

Treatment: Obtain more information on historic surface treatments through archeological investigations. There are two surface treatment options that provide accessible surfaces that should be considered for new townsite roads, roads exhibiting erosion problems, and those that will be made universally accessible:

A. A granular stone surface with an irregular pebble size, but no greater than 3/8". The granular stone can be crushed dolomite or red limestone. Niagara dolomite is available in a quarry wash (3/8" and finer pebble size) from the Sturgeon Bay Sand and Gravel Company (Wisconsin). This material also includes the fines and therefore the material cements together when compacted. A source for red limestone has not been investigated. Material should be selected for its ability to compact well and its resemblance to the historic fabric.

The granular stone surface should be about 4" thick, applied over a prepared subgrade, and well compacted. Where slopes are greater than 5%, asphalt should be used as a base under a chip and seal surface. The chip should match the stone used on other roads. This treatment usually is indistinguishable from the granular stone surface.

B. A stabilized soil surface could be used to achieve a very natural appearance to roads. The soil could be stabilized with a soil cement (latex-polymer-acrylic) that would lend a darker color to the paths and roads. Because this is an evolving technology, it would be ideal to use a stabilizer that has been tested in the upper Midwest. Because the technology is evolving, largely under the auspices of federal agencies, the success of various products should be reviewed prior to work. The Midwest Regional Office of the National Park Service in Omaha, Nebraska can be reached at 402-221-3426 and the National Park Service Rivers, Trails, and Conservation Assistance Program in Brecksville, Ohio can be reached at 216-657-2950.

Issue 4: Historically, streets that were very heavily used were wider than those that were less used. All roads had uneven edges, and road widths varied with terrain and condition. Figures III-16 and III-25 show the appearance of Fayette's roads historically.

In parts of the town center the roads were like meeting places, occupying the entire area between buildings. In the residential area, the roads were quite narrow. Over time, roads have become a fairly uniform width and road edges are fairly regular. Visitors are not presented with the variety and irregularity of the historic roads.

The widths of roads in various areas (residential, commercial, industrial) has not been determined. Through archeological testing, a range of widths for roads in each area should be determined as a basis for the site's interpretation and any road reconstruction.

Goal: To be able to interpret (and if necessary recreate) the historic appearance of roads by determining their width in various locations, and to portray their historic appearance by maintaining the surface treatment so that edges are feathered rather than uniform.

Treatment: Roads in the commercial core of Fayette should be wider than those in the residential area. Commercial streets might average 20' in width, and residential streets might be 8 to 10' wide. However, archeological investigations should be undertaken to determine actual widths.

Issue 5: Some important historic routes have been eliminated or obscured, most notably the old county road and the road in front of the large barn.

Throughout Fayette's history its connection to the rest of the world has been important. The now obscured portion of the county road probably was located in the general area of an earlier road that led out of the townsite. Elimination of this route portrays Fayette as an isolated community, when in fact it was not. Its elimination also has resulted in a lack of interest at the southeast end of the site, an overabundance of park-like turf, and elimination of a clear path across this end of the site

Construction of the county road resulted in the destruction of two granaries and the jail, buildings that are worthy of interpretation. According to John Halsey, "all level areas adjacent to the old railway or county road must be considered highly sensitive and should not be subjected to construction, soil borrowing, etc., without previous archaeological clearance."[10]

The area in front of the site of the large barn is not clearly defined as a road. This area historically was the scene of a great deal of activity and provided access from the barn to both main streets. Defining a road in front of the barn could enhance interpretation of the barn and facilitate travel though the town.

Goal: To reconstruct roads that enhance interpretation or facilitate access.

Treatment: Reconstruct the segment of the county road that has been obscured. This should be about 20 foot wide and surfaced as recommended in Issue 3. It should generally follow the route of the old county road, but archeological investigations of the historic roadbed, the two granaries, and the jail that were on that site should be undertaken first.

Construct the road in front of the barn, connecting Main Street and Cedar Avenue. This road should be of the historic width to reflect the high degree of activity that occurred in this area.

Indicate the existing trail connection to the Overlook Trail by improving signage.

If feasible, construct a universally accessible path that serves as an overlook in the vicinity of the railroad grade that ran behind the furnace compound and above the kilns.

Construct a path to an overlook to view the slag beach as indicated on the treatment recommendations map.

Reconstruct the road that runs in front of the furnace complex, as a path to the interpretive signs at the kilns.

Issue 6: Erosion is a problem on some routes. A path leading from the superintendent's house to the site of the sawmill is a major problem. The paths crossing the slope in front of houses 3 and 4 and by the company store and warehouse also present problems.

Goal: Eliminate erosion problems on townsite routes and prevent future erosion problems.

Treatment: The serious erosion problem on the path leading from the superintendent's house to the sawmill should be resolved by eliminating vehicular traffic and taking one of the following measures: 1) build steps or 2) stabilize the surface, redirect water flow, and establish a low plant edge. The erosion on the path in front of houses 3 and 4 should be remedied by applying the surface treatments recommended in 9, below. Treatments recommended for slopes greater than 5% in Issue 3, above.

Issue 7: Horses and carriages in the townsite are damaging road surfaces and utilizing routes used by visitors on foot. At public sites throughout the country, the presence of horse and carriage traffic has been recognized as an extremely damaging force. Surface material is dislodged and scattered, ruts appear, and erosion is evident. Such traffic requires more intensive maintenance than foot traffic or minimal automobile or light truck traffic. Thus, the cost/benefit of permitting horse drawn carriages must be closely analyzed. It generally is not a good idea for horse traffic to be allowed on the same routes as people on foot. This potentially dangerous and unsanitary situation is avoided by routing the two along separate routes.

Despite these drawbacks to horse and carriage rides in the townsite, they remain a popular attraction and a source of revenue, and they provide an opportunity for local businesses to operate a concession. Therefore, horse and carriage rides should be allowed somewhere at Fayette State

Historic Park, outside the townsite, where they will not be mingled with foot traffic, nor cause undue damage to roads.

Goal: Eliminate horse and carriage traffic in the townsite, but maintain the rides elsewhere in the park.

Treatment: Prohibit horse and carriage traffic on routes intended for pedestrians, on routes that are maintained for wheelchairs, and on roads that contribute to the historic fabric of Fayette. Consider implementing some of the following alternatives:

a. Designate a horse and carriage route from the parking lot to the camp ground and as far as the new parking lot for disabled visitors; provide a turn-around before the new disabled parking lot.

b. Use the carriages to carry people from the parking lot to the townsite via the old county road that enters the townsite from the east. Provide a turn-around before the path leading down from the visitor center.

c. Route the carriages around the race track from the parking lot.

Issue 8: The placement of some historic markers (M6, M11, M13, and M16 on the Episode IV map) has resulted in the creation of paths from the main routes to the markers. These paths wear the turf, become eroded, and can be inconvenient.

Goal: Place markers so that new routes are not created to view them or establish and maintain newly defined paths to existing markers.

Treatment: Place historic markers so they can be viewed from the townsite roads or establish paths to the markers (and the item being marked). The paths should be 5 feet wide and surfaced with a material that allows universal access and that contrasts in color with the historic routes.

Issue 9: The ballpark and race track were important historic features, representing recreational life at Fayette. They are not linked to the townsite and visitors have a difficult time seeing them on foot. (They also are becoming increasingly difficult to see from any vantage because of the growth of vegetation -- see vegetation issue 7).

Goal: To link the ballpark and race track to the townsite and interpret them as important historic features.

Treatment: To make the ballpark and race track accessible to visitors, a path should lead from the parking lot to an overlook cleared in the woods.

Vegetation

Background

From historic documentation, it is known that the area around Snail Shell Harbor was heavily forested in the mid-nineteenth century. Today, the extent of forest cover somewhat mirrors the historic occurrence, but the dominant species are somewhat different. Issues regarding vegetation pertain to the natural, aesthetic, and functional concerns of the townsite that are affected by vegetation.

The naturally occurring forests on the Garden Peninsula are Mesic Northern Forests (Northern Hardwood) as defined by the Michigan Natural Features Inventory. The forests in the vicinity of Snail Shell Harbor generally represent two variations of this classification, depending on soil conditions, topography, and stage of succession.

On thin soil and steep slopes, white cedar (Thuja occidentalis) and white birch (Betula papyrifera) dominate. Where soil depth to bedrock is greater and slopes are less steep, the dominant sugar maple occurs in association with aspen (Populus tremuloides) and white birch. The cedar/birch community prevails on the cliffs and in some micro-areas around the townsite. The maple/aspen/birch community prevails on all other wooded portions of the site. Many areas represent the transition between these two groups.

The two other vegetation communities that occur on the site are shrubs and grass/sedges. Both probably were represented historically at Fayette, and it is important to maintain them as discrete communities and as transitional areas in the stages of plant succession.

General Treatment Recommendations

It is desirable to maintain a hierarchy of plant growth, related to plant height and density. Four groups have been defined, ranging from the lowest and least dense to the tallest and most dense. To maintain a high degree of diversity in texture and color, each of these forms should be represented on the site.

- grasses and sedges (open areas)
- shrubs
- trees with a low understory (groundcover)
- trees with a dense shrub understory or border

Specific Existing Conditions and Treatment Recommendations

Issue 1: Sugar maples are encroaching on the entire site, decreasing the diversity of plant species in the townsite.

Goal: Selectively remove sugar maples or discourage their invasion.

Treatment: Sugar maples need to be removed where they are beginning to invade new areas. Specifically, the maples in the birch grove near the kilns should be removed and maples saplings in areas that are predominantly cedar should be removed. To promote diversity, in gaps in maple/aspen/birch communities, tree species that naturally occur in Mesic Northern Forests should be planted. This includes the following species: Ironwood, Yellow birch, Hemlock, and Beech.

Issue 2: Vegetation is encroaching on buildings, fostering damp and destructive conditions.

Goal: Allow air movement around structures by maintaining an open buffer to promote drying.

Treatment: Remove all vegetation from buildings and decrease the tree canopy in their vicinity. Trim all limbs that overhang buildings and remove trees, shrubs, and tall grass within 10' of building envelopes.

Issue 3: Vegetation covers remnants of buildings, adversely affecting their preservation. In some cases, trees are growing inside foundations. This affects their interpretation to visitors, and their stability is compromised by the proximity of roots. However, some trees in the vicinity of foundations have become specimen trees, particularly the old birch in the Engine House foundation and the two birches near the foundation of House no. 8. If these trees are determined to have a benign affect on the building ruins, they should be allowed to die a natural death. When they are gone, new tree growth should not be allowed.

Goal: To protect the integrity of foundations by keeping the foundations clear of vegetation.

Treatment: Remove all vegetation from building remnants, except in the case of the specimen trees as described above.

Issue 4: Species of plants that were introduced by nineteenth century settlers can be found throughout the site, with apple trees and lilacs the most obvious. Although in some cases the species have become naturalized, they may be vulnerable to the encroachment of native species.

Goal: To recognize and interpret non-native plant materials for visitors.

Treatment: Non-native vegetation should be inventoried and, for significant species that contribute to interpretation, appropriate measures should be taken to insure their health and continuation. Non-native plants that are invasive or overly represented at the expense of native vegetation should be selectively removed or discouraged.

Issue 5: Vegetation on the site represents various stages of succession. These stages should be interpreted for visitors and steps should be taken to maintain this diversity. Where maples are most dominant, the later stages of succession are represented. Where conditions could support their growth and they are not dominant, earlier stages of forest succession are represented. The birch grove near the kilns is an example.

Goal: To preserve diverse stages of plant succession and interpret them to visitors.

Treatment: Treatment number 1 covers controlling the dominance of maples and treatment of the birch grove. In addition, vegetation below the cedars on the south end of the knoll and along the slag beach should be maintained as shrub communities. Grass and sedge communities should be mowed periodically to keep shrub and tree growth at bay.

Issue 6: The ballpark and race track are important aspects of Fayette's history, but their form is being eroded by the invasion of pioneer growth. In time, they will be completely lost as cultural resources.

Goal: To keep the route of the race track and the form of the ball park visible.

Treatment: Clear trees and shrubs from the route of the race track so that the track can be periodically mowed. Maintain the open space at the north end of the race track to indicate the location of the ball park.

Issue 7: Scenic and historic views at Fayette are created by the form and placement of vegetation. Vistas mostly are shaped by trees, while focused views are shaped by trees and shrubs.

Goal: To manage vegetation to establish and preserve important views.

Treatment: To provide views to the quarry and maintain a pioneer level of succession at the townsite, the birch grove near the kilns should be cleared of its shrubby understory and maintained as a pure stand with a mowed understory.

Vegetation needs to be removed or trimmed to enhance the views described in Views, below.

Views

Background

Views are scenes of the townsite, as viewed by visitors from specific vantage points. They help interpret the story of Fayette to visitors, and foster an understanding of the site's spatial relationships. For disabled visitors, views may be their only access to a part of the site.

Views can be panoramic or focused. At Fayette they are mostly created by the pattern of vegetation and the terrain. Because the vegetation changed so much over time, it can be assumed that the extent of open vistas also changed.

Specific Existing Conditions and Treatment Recommendations

Issue 1: Some views that were important historically no longer exist. They probably do not exist because of the growth of vegetation. Those of exceptional importance are:

- from the top of the south bluff to the townsite
- from the rim of the "bowl" to the ball park and race track
- near the parking lot by removing vegetation

Goal: To open views that were of exceptional significance historically if they enhance visitors' understanding and appreciation of Fayette.

Treatment: Open views to the race track and ballpark from an overlook developed near the parking lot

Issue 2: To arriving visitors, views of the townsite are completely obscured by vegetation until they are inside the visitor center. From there, a focused view introduces visitors to the site and provides an overview. From below, the visitor center, which would be considered a modern intrusion on the historic landscape, is barely discernible.

Goal: Maintain the views from the visitor center, while keeping the visitor center screened from below.

Treatment: Preserve the view from the visitor center to the townsite by maintaining the opening in the trees. Broaden the width of the view to the extent possible without exposing the visitor center to the townsite.

Issue 3: Vegetation again obscures the view of the townsite, from the visitor center to the end of the path down the hill, where the townsite dramatically appears. At this important view, there is little orientation for the visitor.

Goal: Preserve the suspense of the walk down the hill from the visitor center, but provide an interpretive experience to orient visitors.

Treatment: Maintain the sense of enclosure on the pathway leading from the visitor center and the focused view at the end of the path.

Issue 4: Views of the site can be experienced from the Overlook Trail on the bluffs to the east of the harbor. Views within Fayette are accessible across the center of the townsite, as they were historically, because there is little vegetation.

Goal: Maintain the open vistas within the townsite.

Treatment: Maintain view openings from the Overlook Trail by clearing vegetation.

Issue 5: Views of the quarry, kilns, slag beach, harbor, and some of the residences are limited due to vegetation. Historically, views to each of these features were readily available. Because these are difficult places to reach on foot, if disabled visitors can see them, their only view may be from the visitor center.

Goal: To remove sufficient vegetation to make these views accessible to disabled visitors and to better represent their historic prominence.

Treatment: Open the view to the quarry, kilns, and harbor by removing undergrowth (not trees)

Site Features

Background

Site features at Fayette are considered human-made elements placed in the cultural landscape, exclusive of existing buildings. Elements classified as features include historic architectural remains, visitor amenities, interpretive tools, large-scale artifacts, utilities, and structures. Site features identified at Fayette have been grouped into four categories: existing historic, non-extant, amenities, and artifacts.

The historic site features at Fayette should be considered the best interpretive tools for explaining the operation of the industrial plant and everyday life. Rather than incidental elements in the landscape, the historic site features put Fayette in an era of industrial, social, cultural, and technological development. Because of their potential for interpreting the site and giving visitors a more thorough understanding of Fayette during its productive years, site features should not be placed casually nor left uninterpreted. Visitors should not be misled by the inclusion of features that are not related to Fayette. Likewise, visitors should not be distracted or confused by features that are non-historic, but necessary for the function of the site as a heavily visited historic site.

This section includes an inventory of site features and recommended treatments.

Issue 1: The following historic site features exist in the townsite:

- dock pilings along harbor edge
- dock cribbings off slag beach
- paving at superintendent's house
- trestle ruins (partial)
- slag beach
- railroad grade (partial)
- well (capped)
- retaining walls at railroad grade, kilns, and furnaces
- quarry
- building ruins:
  - hay barn
  - engine house
  - blacksmith shop
  - carpenter shop
  - stock barns

company store and warehouse
boarding house
residences
barber shop
trestle foundation

Goal: To preserve and interpret historic site features that have been identifies with Episode 2.

Treatment Recommendations:

1. Dock pilings along the harbor edge should be retained and interpreted as an important component of the cultural landscape. Various archeologists have concurred that aggressive treatment measures are not necessary, and that the underwater environment provides an ideal environment for preservation, particularly at deeper levels. The dock pilings should be inventoried and mapped for a permanent record of their placement.

2. Dock cribbing near the slag beach should be documented. Research should be pursued to discover an approximate date of construction and the specific function of this dock. Its presence should be noted in the slag beach overlook.

3. Interpret the old well on the south side of the Company Store (Building #102) in interpretive materials.

4. Stabilize and continue to maintain retaining walls.

5. Stabilize all building ruins. Take these measures to facilitate their maintenance and highlight their existence: on the outer edge of foundations apply a 3-4" wide, 4" deep gravel rim. On the inside of the foundations apply a 4" layer of gravel. Reapply as needed.

6. Keep paving at the Superintendent's House free of soil and vegetation.

7. Open the view to the quarry (see view issue 5).

Issue 2: The following historic features no longer exist at Fayette:

- ball park
- race trace
- railroad grade (partial)
- trestle (partial)
- dock
- building sites:
  - laborers' cabins
  - village jail
  - granaries
  - sawmill
  - warehouses
  - residences
  - ice house
  - sheds
  - fish shack
  - grain elevator

Goal: To interpret those non-extant features that would increase visitors' understanding and appreciation of Fayette.

Treatment:

1. Indicate the location of significant non-extant buildings with interpretive signage

2. Determine the location of the railroad beds leading to the trestle and engine house. Any remaining surface material should be left in place and the beds should be contained with an edging. If little surface material remains, a soil stabilizer should be applied (see Site Circulation, Issue 3).

3. The approximate route of the railroad bed behind the furnace complex and kilns should be developed as an accessible route (See map: *Recommendations: Site Circulation and Site Features*).

4. Interpret the trestle structure so that visitors understand the relationship between the railroad and the furnace operation.

5. Interpret the historic dock so that its grand scale and its role in the industrial operation can be perceived by visitors.

Issue 3: Certain amenities are needed to provide a safe and comfortable environment for visitors by car and bus, as well as by boat. It is important, and possible, for these amenities to neither infringe on nor distract from the historic nature of the townsite. Through design, placement, and signage, amenities should be made convenient, unobtrusive, and distinctly non-historic.

Because of the fragility and special nature of the historic site, amenities should be kept at a minimum within the townsite. Amenities that lead to activities that endanger the site or distract from its historic nature should be prohibited in the townsite. Visitors can be directed to the appropriate place in the park to carry out these activities. Examples are building fires for grilling, camping, and drying laundry.

Amenities outside the townsite should be conveniently located as possible, but must be out of sight of the townsite to accentuate its historic nature. A balance must be struck between providing amenities that will attract and retain visitors long enough to explain the site and preserving the resource they have come to visit.

The following visitor amenities exist at the townsite:

- modern dock
- restrooms
- picnic tables
- benches
- non-historic water pumps
- trash barrels
- safety fences
- directional and regulatory signage
- interpretive markers
- interpretive signage at visitor center

•electric transformers
•parking bollards

Goal: To provide the public with essential amenities with the least impact possible on the site's historic qualities.

Treatment:

1. Retain the modern boat dock, but minimize any accessories. Maintain only those features necessary for safety and basic comfort.

2. Construct restrooms that are fully accessible to the west of the hotel and provide universal access to them by way of a new path. The restrooms should be screened so they are not visible from within the townsite or from overlook vantages at the entrances to the site. Eliminate the existing restroom and restore the grade where they were located.

3. Cluster two or three picnic tables near the new dock and develop more extensive picnic facilities near the parking lot, as needed.

4. In various locations provide simple, wooden benches similar to those seen in Figure II-6.

5. Retain barrel trash receptacles

6. Maintain safety fences

7. Coordinate all directional and regulatory signage and continue to use the standard state park gray color scheme.

8. Relocate interpretive signs as described in circulation, above

9. Use cool gray color treatment on all contemporary features to distinguish them from historic features.

10. Coordinate signs within each townsite interpretive zone

11. Move electric transformers from existing prominent locations or screen with vegetation

12. Maintain stone wall along path from visitor center

Issue 4: Artifacts are portable, large-scale objects that are located in the townsite because of their relationship to the history of the site. They should be placed in a pertinent location and their history and function should be explained to visitors. Artifacts should not be used simply as decorations, but they should have a meaningful purpose.

The following artifacts exist at the townsite:
•wagon
•wagon wheels
•anchor
•axle

Goal: To use only those artifacts that whose association with Fayette's history (Episode II) are clear, and to use interpretive tools to explain their association.

Treatment: Remove those artifacts that do not meet the goal, retain those that do, and interpret them.

Site Utilities Analysis

Water System

Analysis of Existing Conditions

There are water distribution lines, which were installed in the 1980s, throughout the townsite. However, the ground water supply became contaminated and, subsequently, its use was discontinued in 1991. Physical investigation revealed that currently, there is no potable water service within the entire Fayette State Historic Park. The only drinking water that is available is brought in from the nearby city of Garden, whose water supply is provided by uncontaminated wells. Non-potable water is used for the toilets and sinks in toilet rooms located at the Visitor's Center.

Treatment Recommendations

Jim Hooker, of the Indian Lake Management Unit, indicated that the Department of Natural Resources has consultants (Edwards Engineering of Bay City, Michigan in cooperation with the Escanaba region of the Michigan Department of Environmental Quality) who have designed a membrane filtration system to provide potable water throughout the park. This system is proposed to be completed and in service by 1997. This system is intended to provide water to the existing 2" PVC water distribution lines. These PVC lines were installed per 1985 drawings for the distribution to three (3) public drinking fountains/water pumps within the townsite. One of these fountains is located southeast of the Hotel (Building #100), one east of Building #4 (near the reconstructed dock area), and one just south of the Company Store / Warehouse (Buildings #102A & B), which is very near the historic location of the town water pump (Figure III-24). Although these PVC lines will need to be flushed and disinfected prior to being put back into service, they will provide sufficient potable water to the townsite. This system should be implemented as recommended to provide potable water within the townsite.

Sanitary System

Analysis of Existing Conditions

All ground water usage from wells throughout Fayette State Historic Park was discontinued in 1991 due to fecal coliform contamination. There are two existing vault toilets located within the townsite. The vaults of these toilets are currently pumped out on an annual basis, and the sanitary waste is hauled off-site. These toilets are located at the southwest edge of the town center on grade that has been filled several feet above its historic elevation (Figure 41). Other facilities include public toilet rooms that are located in the Visitor's Center (just east of the historic townsite).

Treatment Recommendations

Due to their visual obtrusiveness and inaccessibility, the existing pit toilets, located on filled grade southwest of Building #9, should be removed. Following their removal, the surrounding grade (which has been filled) should be returned to its original, lower elevation, based upon evidence found in historic photographs.

New barrier-free accessible pit toilets should be constructed within the townsite. For both visitor convenience and less disruption to the historic integrity of the townsite, these toilets should be sited southwest of the Hotel (Building #100), across the existing path, at a distance far enough to allow the provision of a vegetative screen. Because the soil mantle is shallow over the dolomite of the peninsula (the dolomite is less than 12" below grade in some areas), septic leach fields would be difficult to install and could potentially add to ground water contamination. Therefore, the toilets should be pumped and waste hauled appropriately off-site. Two standard 6' x 8' units, which can accommodate wheelchairs, should be located adjacent to one another. The door into each structure should be located on the northeast wall and the required clean-outs should be located at the gable ends of the structures. All construction details of the standard Department of Natural Resources design for this structure provide accessibility. The structure will be sited so that it is concealed by the hotel in the viewshed from the southeast overlooking the site, which is the main approach into the town center.

Prior to the construction of the recommended toilet building, archeological research should be undertaken at the proposed site. This work should determine the presence of any significant artifacts in the proposed area of construction.

Electrical System

Analysis of Existing Conditions

Drawings from 1974 and 1980 indicate that electric service was extended from the Visitor's Center to the town center, and then extended from the town center to the two supervisors' residences that are located along the north end of the peninsula (Buildings #3 and 4). Lighting for exhibits and visitor safety has been installed in the buildings at the town center, including: the Town Hall (Building #101), the Hotel (Building #100), and the Company Office (Building #108). Randy Brown of the Department of Natural Resources indicated that the DNR has since extended the electrical service to the Superintendent's House (Building #1) and the Doctor's House (Building #2). Physical investigation of the Doctor's House revealed exposed conduit and track lighting (presumably as part of a exhibit) which is no longer used.

All of the electric lines are buried. Physical investigation revealed two electric meters located within the townsite: one is located behind (south of) the Hotel (Building #100) and one is located along Stewart Avenue (across from the foundation of the former Boarding House (Building #5).

There is currently no electric service to the supervisor's residences located along the west shore of the peninsula (Buildings #25,26,27,30/31), or to the furnace complex.

Treatment Recommendations

There is currently no electric service to the supervisors' residences along the west shore (Buildings #18,25,26,27,30/31), or to the furnace area. Extension of buried cable to any of these structures could involve some trenching in the dolomite, therefore, it is not recommended that services be extended to any of these structures, with the exception of Building #30/31, which is recommended for restoration and opening to the public for interpretation (electric service should be extended from the Doctor's House (Building #2)). Electric service should be provided to all buildings that are open to the public, especially those that house artifacts (all of which already have electrical service with the exception of #30/31). This electric service should be used to aid interpretive exhibits, for housekeeping, and security needs. The Company Supervisors' Duplex (Building #30/31) is recommended to be rehabilitated and become open to the public.

Security System

Analysis of Existing Conditions

An alarm system was installed in the two extant supervisor's residences in the town center (Buildings #7 and 9), the Hotel (Building #100), the Town Hall (Building #101), the Company Office (Building #108), and the Machine Shop (Building #104), circa. 1974. This system contained both fire and intrusion alarms. It was connected to the Visitor's Center, DNR Office, and the Manager's Residence. The Department of Natural Resources stated that both of these systems resulted in frequent false alarms. Because of this problem, both alarm systems were permanently discontinued, and there are currently no alarm systems in service.

Treatment Recommendations

The current system of allowing private boats to dock in the harbor overnight, with unlimited, unsupervised, 24-hour access to the townsite, is not an acceptable management approach, given the historic significance and vulnerability of the resources at Fayette. The value of preserving and ensuring the protection of the historic townsite outweighs other park purposes of overnight visitation. Therefore, 24-hour supervision during the park season is essential to protect the historic resources of the townsite. Furthermore, as stated within the electric service recommendations, a contemporary security / intrusion alarm system should be designed and installed at all of the structures that house artifacts and are open to the public. Further investigation into the use of remote sensors, which will minimize hard wiring, is recommended.

Fire Suppression

Analysis of Existing Conditions

Randy Brown of the Department of Natural Resources stated that even though there is a fire-fighting apparatus on-site, it is suitable for fighting grass fires only. Furthermore, the Department of Natural Resources staff at Fayette are neither authorized nor trained to enter a burning building. No automatic fire suppression systems have been installed at any of the townsite's buildings.

Treatment Recommendations

Due to the fact that the park staff at Fayette State Historic Park have the training and equipment to fight grass fires only, any fire-fighting measures at the buildings within the townsite would have to be undertaken by the volunteer Fire Department from the Village of Garden, approximately eight miles, or twenty minutes, away. Therefore, it is essential that a properly engineered and installed detection system, that is tied to a central panel with twenty-four hour monitoring, be installed at the site. This system would provide early warning to at least minimize and contain to as small an area as possible any damage, especially at adjacent buildings, should a fire occur.

Additionally, an automatic fire suppression system has the potential to contain and/or distinguish fires at an earlier stage than that possible by the off-site response team from Garden. However, there are several issues related to the installation of a fire suppression system that affect the historic integrity of the townsite. Moreover, a fire suppression system with year round service is economically impractical at this site. Due to the presence of dolomite just below grade throughout most of the site, the existing water lines are not below grade and therefore must be drained in the winter to prevent freezing. The tremendous expense of relaying these lines below the frost line is impractical (They would need to be laid at least eight feet below grade to prevent freezing).

While it is feasible to install a fire suppression system that is operational just during the park season, there are several factors that would require an extensive financial investment. These include: the need for pressurization of the water suppression system (which would involve the construction of a pressure tank on the bluff above the townsite); the possibility of still trenching through some limestone due to its level near grade; and the need to drain all water lines each season to prevent winter freezing and damage.

The unrestricted, twenty-four hour access to the townsite due to the boat docks and the proximity of the campground increase the risk of fire during the season. It is recommended that a twenty-four hour security presence be established during the park season. This on-site presence would increase the early warning of fire, and, in addition to a detection system, would be more economically feasible than the installation of a fire suppression system that is only seasonally operational.

Handicapped Accessibility Analysis

Analysis of Existing Conditions

Physical investigation revealed that the existing circulation paths into and throughout the townsite are not accessible. The paths are surfaced with gravel, and therefore are not negotiable by persons in wheelchairs. The existing handicapped accessible parking spaces are provided in the parking area located east of the Visitor's Center. Although an accessible route is provided from this parking area to the Visitor's Center, the route from the Visitor's Center into the townsite is too steep to be negotiated by a wheelchair. Further, while there are handicapped accessible toilet facilities in the Visitor's Center, there are not any within the townsite itself.

General Treatment Recommendations

The recommendations in this report seek to provide physical access for disabled persons into and through the townsite, which is consistent with the preservation of the townsite's significant historical attributes. Modifications to provide accessibility have been chosen that will least affect the townsite's historic integrity. Those modifications which were determined to be too detrimental to that integrity were not recommended, and instead, the utilization of existing views and vistas will provide visual access to those areas that are not physically accessible.

Specific Conditions and Treatment Recommendations

HC-1 **Condition:** Lack of handicapped accessible parking near accessible route into historic townsite
Treatment: Provision of handicapped parking and construction of accessible route

Handicapped parking will be located as proposed by the Department of Natural Resources along the old county road, south of the townsite. The Fayette State Historic Park informed the project team that six handicapped parking stalls would meet the needs of the park and thus be provided. It is recommended these six parking stalls should be asphalt. As stated in the recommendations for site circulation, an accessible pedestrian route will be provided between this parking area and the center of the townsite, as well as to the barrier-free toilets (Illustration at end of Part E).

HC-2 **Condition:** Lack of handicapped accessibility at individual buildings in the historic townsite
Treatment: Provision of handicapped accessible entrances where possible

Handicapped accessibility at each individual structure within the townsite will be determined based on its function. At a minimum, those buildings that are open to the public and exhibit artifacts should be accessible at the first floor level. Trying to provide barrier-free access to the second floor of these structures would create a tremendous impact on the historic character of these buildings. Therefore, it is recommended that interpretation of the second floor spaces be done through a programmatic response. This would involve utilizing such tools as video to provide visual access to these otherwise inaccessible spaces. The specific treatment recommendations to be undertaken at each of the nineteen individual buildings open to the public are listed under the treatment for those particular buildings to follow.

Architectural Analysis

General Observations

There are eighteen existing structures at the townsite. Each of these structures has received some level of treatment by the Department of Natural Resources and the Michigan Department of State. For the purposes of our investigation, four of these structures were excluded: the Furnace Complex (Buildings #114A - M), the reconstructed Charcoal Kiln (Building #115), the reconstructed Lime Kiln (Building #11), and the Hotel (Building #100). While it is not within the scope of this report to address the existing conditions at these structures, it is important to acknowledge that they have already received a substantial amount of treatment. An extensive historic structure report on the Hotel was prepared recently by a preservation team led by Dick Frank, FAIA, entitled "Architectural Analysis and Preservation Plan," and the treatment recommendations that were proposed will soon be implemented.

The fourteen buildings that were physically investigated were categorized into either Type 1: Extant buildings that are open to the public (for interpretation) or Type 2: Extant buildings that are not open to the public. The level of treatment that has been undertaken by the Department of Natural Resources and the Michigan Department of State has corresponded with these two categories. In general, the Type 1 buildings received extensive treatment as recommended in the 1974 *Restoration and Stabilization Plan* that was prepared for Fayette, and are, subsequently, in better condition than the Type 2 buildings. At the same time, however, this treatment included the replacement of deteriorated, original architectural fabric at each of the buildings. Therefore, those buildings that were not treated as extensively (Type 2), are in poorer condition but generally retain more of their historic fabric.

Two other categories of buildings were also investigated. Type 3 includes those buildings which have completely deteriorated with the exception of their dolomite foundations, which are in a ruinous state. Type 4 includes the sites of former buildings where there is no evidence of the building that remains above grade.

Of the extant buildings at Fayette, eleven are residential structures. Six of these are single-family residences that were constructed in the "salt-box" style for some of the company's supervisors, circa. 1867 - 1870. Three of these residences are located on Main Street, two of which are near the town center (Buildings #7 and #9), while one is located along the back street (Building # 18). Two of the residences are located on the bluff overlooking the harbor adjacent to the Superintendent's House (Buildings #3 and #4), and one is at the center of the northern end of the peninsula and was the home and office of the company doctor (Building #2). Another extant salt-box style residence is the Supervisors' Duplex Residence (Building #30/31),which is located at the end of the back street that runs parallel to Big Bay de Noc, and is the only extant duplex residence in the townsite. Four duplexes had been constructed at Fayette, and Building #30/31 was the smallest, and the only one constructed in the "salt-box" style.

General Approach Toward Architectural Treatment Recommendations

It is recommended that all of the extant buildings at Fayette be preserved to serve in an interpretive capacity as interrelated elements of the historic townsite. New construction should be kept to a minimum, limited only to that which is required to provide barrier-free accessibility, and to ensure the health and welfare of the townsite's visitors. Through the implementation of a preservation strategy at the extant buildings, treatment will not focus on one particular date within the townsite's history, but rather on the importance of the overall evolution of the townsite before, during, and after its operation.

As much as possible, at all structures within the townsite, deteriorated historic features should be repaired rather than replaced. Furthermore, as stated in the Secretary of the Interior's Standards for Preservation, "The existing condition of historic features shall be evaluated to determine the appropriate level of intervention needed. Where the severity of deterioration requires repair or limited replacement of a distinctive feature, the new material shall match the old in composition, design, color, and texture."11 Physical investigation was undertaken to determine the appropriate recommendations provided within this report, however, some additional on-site determination as to the feasibility of either maintaining and restoring the existing fabric, or replacing it with new in-kind fabric, will likely be required at the time treatment takes place, particularly at severe areas of damage and deterioration. It is suggested that in cases where it is not feasible to remove the historic fabric without destroying it altogether, and it does not present a safety or structural hazard and / or physically damage other elements of the structure, the integrity of the material should be maintained.

Paint and Finishes

Background

A brief statement regarding the exterior finishes at the extant structures in the townsite was presented in the 1974 *Restoration and Stabilization Plan* prepared for the Fayette Historic Townsite by the National Heritage Corporation. The report states that,

> Few traces of exterior paint colors survive. And the results of the study undertaken are inclusive for the clapboard sided structures. It is therefore recommended that a further study be undertaken to determine if any finishes were originally applied to those buildings. The results of the analysis do show that the board and batten sided structures [those elevations that were never covered with clapboard siding] were painted with red iron oxide (5R 3/4) with white trim (N9.0). [These color notations represent keyed colors on the Munsell Color System.] Furthermore, it is known that the buildings were painted c. 1907 - 1910 by the new site owner; traces of that paint are still available.[12]

The 1974 report also included a paint analysis of interior finishes at the three structures it studied in detail: the Superintendent's House (Building #1), the Hotel (Building #100), and the Town Hall (Building #101). The results of that analysis showed the presence of dolomite as a medium with pigments and binders added. The report stated that,

> Two types of interior paints were employed: oil-based primers and enamels were used on trim and other wood surfaces; plaster walls and board partitions were unprimed and painted with a lime wash called Distemper. Fayette basically was a self-sufficient town, with limestone [dolomite] its chief natural resource. Hence it made sense to use the material with pigment to produce a means of finishing wall surfaces.[13]

All three of these structures have since been repainted (at least in part) at the interior. An interior paint analysis has not been undertaken at any of the other buildings within the townsite.

Existing Conditions

Limited physical investigation in 1996 revealed that most of the exterior surfaces of the extant structures are extensively weathered and have lost almost all of their former finishes. However, there are small remnants of paint film at protected areas of some of the existing buildings, which, most likely, are part of the paint scheme implemented ca. 1907 - 1910. The Superintendent's House (Building #1) has the best remaining evidence of this paint scheme, which was comprised of a light monochromatic field (at the areas of clapboard siding) with dark trim (on the corner boards, window frames, etc.). Another building, a Supervisor's Residence (Building #4), also has an extensive amount of paint left on its exterior surfaces. However, this paint (or at least the top layers) most likely dates only to the 1960s, when the structure was remodeled for use as the park manager's residence.

General Treatment Recommendations

The determination of original paint finishes and colors of exterior surfaces is a difficult problem to solve because of the weathering and material deterioration that the buildings at Fayette have experienced. However, physical investigation revealed that limited historic paint film has survived at some of the protected areas of the existing structures. Therefore, paint samples were taken from all extant buildings where possible and a paint analysis of these samples is included in Appendix B. The results of the paint analysis should be used as a guide in the determination of long-term finish treatments and, at a minimum, provide a valuable addition to the historic record of Fayette.

Regardless of historic appropriateness, applying a finish to the exterior surfaces of the extant buildings at Fayette is both necessary and urgent to ensure the preservation of the existing historic fabric, and to prevent further deterioration. Because one of the main causes of wood deterioration is moisture penetration, a primary purpose for painting wood is to exclude such moisture, thereby slowing deterioration not only of the exterior siding itself but, ultimately, of its underlying structural members. All of the extant buildings should receive finish treatments as soon as possible to preserve their historic fabric. Those buildings that have a significant amount of historic fabric should be treated and finished first, including: Buildings #2, 3, 4 and 18. Prior to the application of any new finish, all unsound wood should be replaced, and moisture problems corrected to the extent possible.

Paint has the potential to define the treatment and interpretation direction of the townsite more than any other site feature at Fayette. It is important to realize that the existing exterior appearance of the buildings at Fayette, that of weathered and worn wood lacking any finish, conveys the sense of a "ghost town" to the visitor rather than that of a busy industrial town. This image of an unmaintained ghost town is an inappropriate representation of Fayette and is in stark contrast to the restored and maintained interiors of several of the buildings. Historic documentation suggests that the wood clapboard buildings at Fayette were painted during the time the furnace was in operation - providing a contrast with the darker greens and browns of the surrounding vegetation and other features of the town. Therefore, to provide a comprehensive and accurate interpretation of the townsite, all of the buildings should be painted. Furthermore, painted structures would provide a greater contrast between the built and natural environment of Fayette: a characteristic that has diminished since its operation. The maintained exterior appearance of the structures would be more consistent with the refurnished and restored interior spaces of the buildings that are open to the public.

When the buildings are painted, it is essential that proper preparation be undertaken to assure the best adhesion and greatest durability of the new paint. It is recommended that existing surfaces be scraped to a sound surface, using the gentlest means possible, and not down to bare wood because total removal obliterates evidence of the historical paints and their sequence. Buildings that should be considered for repainting first are those with the most original (or historic) fabric left, including: Buildings #2, 3, 4, and 18 (all supervisors' residences). Additional procedures should include the abatement and/or containment

of the lead paint finishes that exist at several of the townsite's buildings. Specific treatment recommendations regarding this procedure are included in Appendix B.

In addition to the lead paint removal, attentive preparation of the surfaces prior to repainting will be required. Cleaning of the surfaces is a first priority, along with the careful monitoring of moisture levels of the substrate prior to materials application. Further materials research should be conducted to include the consideration of water-borne penetrating stains as a stop-gap coating prior to repainting. Due to the current condition of the structures at the townsite, and the amount of caulking and materials replacement that will be necessary at each of them, it only makes sense to consider paint as the final coating. If the buildings and all of their joints were currently water tight, then a penetrating stain might have been considered as an alternate final coating.

Specific Treatment Recommendations

It is recommended that paint finishes be applied at each of the individual buildings based on the geographic zone in which it is located. Those buildings in Zone 1 are the non-historic visitor amenity buildings that are not within the scope of this report. Zone 2 buildings are those within the Industrial Area that are constructed mainly of dolomite and did not historically or will in the future receive any paint finishes. Zone 3 buildings comprise the Commercial Core of Fayette. These mainly wood-framed buildings have suffered extensive weathering and subsequent loss of historic paint film. Based on historic photographs, it appears that the finish on these buildings was light in value. Therefore, it is recommended that they receive a light gray or off-white paint finish. The Zone 4 buildings comprise the residential structures at Fayette. These structures are mostly located along the peninsula and have been somewhat protected from the weather. Due to the presence of some paint film left on the exterior of these buildings, a paint analysis was undertaken and should be used as a guide to determine the color of new paint applications.

The Superintendent's House (Building #1) is a unique situation. Historic references and photographs indicate that this building was painted white, and was the only one that was in the townsite. Therefore, this building should be painted white due to the historic emphasis on its color for proper interpretation.

It is important to note this the preservation treatment strategy at Fayette does not require that the earliest paint color at individual buildings be restored. Rather, a simplification for color selection can be determined by using the paint analysis (Appendix B) as a guide. As previously noted, the most important aspect of providing paint finish at the buildings of Fayette is the protection of both historic and replacement fabric, rather than aesthetics.

Existing Conditions and Treatment Recommendations

Roofing

Background

The roofs on both the commercial and residential structures throughout the townsite were originally cedar shingles, ranging from 18" to 24" in length. Some of the cedar shingle roofs were replaced with asphalt roofing, presumably in the 1950s or 1960s, but have since been changed back to cedar shingles.

Historic photographs do not indicate the presence of gutters at any of the buildings, most likely because of the potential of ice build-up in the winter.

Analysis of Existing Conditions

Physical investigation revealed that several of the roofs have extensively deteriorated, or that the shingles have been completely removed from the roofs, thereby exposing the roofing felt that is temporarily held in place with batten boards. The park has a re-roofing schedule for all of the residential structures that it is currently implementing. Buildings #18 and #3 (both supervisor's residences) are to be re-roofed during the 1996 season. Physical investigation also revealed several bundles of shingles stored in the houses that are not open to the public. These shingles were purchased from the Michigan State Prison System, and range from #1 through #3 grade and 16" to 18" in length.

All of the houses along the back street (Buildings #18, 25, 26, 27, 28, 30/31) have an excessive amount of moss growing on their roofs, especially on their north facing surfaces. This moss and mildew is most likely caused by the overgrown vegetation surrounding the buildings which prohibits ventilation and sunlight on the roof surfaces.

General Treatment Recommendations

The Michigan Historical Center and the Department of Natural Resources have already outlined a re-roofing plan, which will begin to be implemented in 1996. The implementation order is based upon the severity of deterioration, and the need for new roofs to protect the historic fabric of the structures. It is recommended that the plan already established by the Fayette State Historic Park be completed as proposed. Furthermore, it should be emphasized that the first building which should be reroofed is Supervisor's Residence #23, as the roof on this building is currently covered with roofing felt held in place with temporary wood battens. Also, based on historic precedent, it is recommended that gutters and downspouts not be installed.

R-1 **Condition:** Deteriorated or missing wood roofing
Treatment: Replacement roofing

Based on historic precedent, all new shingles should be 18", #1 cedar shingles. Although there are shingles stored in the buildings for potential installation, they are historically inappropriate, and not of high enough grade to sufficiently protect the historic fabric. (Recent comments suggest that the shingles stored in several of the buildings at Fayette do indeed meet these standards. Prior to any further reroofing, these shingles should be further investigated to reveal their grade, species, and size.) Following the installation of new roofing, a fungicide and protective sealant should be applied to all new wood surfaces, especially at those houses along the back street, where moisture accumulation is more extensive.

R-2 **Condition:** Deteriorated roof flashing
Treatment: Repair or replacement

At areas where deteriorated roof flashing has been observed (locations where there has been water infiltration at the building's interior near the chimney), should be further inspected. Any loose joints in flashing at chimneys should be sealed with new solder. Deteriorated flashing between porch roofs and side walls should be completely replaced. Because any metal flashing is completely hidden by other building materials and thus, not observed by the public, contemporary materials should be used. Replacement should include the replacement of adjacent wood siding and/or shingles only as necessary.

R-3 **Condition:** Excessive organic growth (moss and mildew) on existing roofing
Treatment: Mildew Removal and Application of Fungicide

Areas of wood shingle roofing that have organic growth on them should be treated with an exterior wood preservative that contains a fungicide. This preservative should be applied with a low pressure spray.

Brick Chimneys

Background

It appears that all of the supervisors' residences at Fayette originally had red common brick chimneys. Several of these chimneys have survived, relatively unaltered.

Specific Conditions and Treatment Recommendations

C-1 **Condition:** Spalling brick
Treatment: Rebuild upper portion of chimney

The loose brick units at each chimney should be carefully removed down to where the masonry is sound. After cleaning old mortar off the units, they should be reused in reconstructing the portion of the chimney removed to its original height.

C-2 **Condition:** Deteriorated mortar joints
Treatment: Tuckpointing

The mortar used in the reconstructed portion and that for tuckpointing, should be carefully selected to match the original color, texture, and strength of the original mortar. The new joint profiles should also match the original, adjacent ones.

Wood Siding

Background

Most of the residential and commercial structures throughout the townsite were originally clad in board and batten siding. However, the battens have been removed and the original vertical boards were covered with clapboard siding at several of the buildings. Based on evidence in historic photographs, it appears that this change took place while the furnace was still in operation. Since its acquisition of Fayette, the state has made several changes to the siding. Alterations have included the replacement of deteriorated wood clapboard siding and the application, in several locations, of a tinted preservative finish.

Analysis of Existing Conditions

Physical investigation revealed a few locations where the original board and batten siding remains, including: the north (rear) elevation of Building #18 (Supervisor's Residence) and the north (rear) elevation of Building #30/31 (Supervisors' Duplex Residence). At the remainder of the buildings, it appears that most of the original clapboard siding was either beveled or lapped and approximately 1/2" to 3/8" thick. The physical investigation also revealed that in some areas of clapboard replacement, the new siding is flat sawn rather than quarter-sawn (thus not historically accurate in-kind replacement). Additionally, several areas of replacement siding were observed to have already experienced sever cupping and have numerous knots. Furthermore, several areas of replacement siding were observed to

have already extensively deteriorated due to the lack of a protective finish, (Figure 13). This lack of a protective coating has accelerated deterioration in several locations.

General Recommendations

In keeping with the overall preservation treatment strategy, the historic clapboard siding should be retained and maintained as long as possible. Those buildings that have an extensive amount of historic clapboard remaining should be given priority for clapboard repair. The protection of the interior historic fabric should take precedent over that of the clapboard siding. For example, if replacement of the siding is required for the proper protection of the interior fabric, then it should be done as more historic fabric will be saved.

Specific Conditions and Treatment Recommendations

W-1 **Condition:** Loose wood clapboard siding
Treatment: Reattach

If the clapboard is not cupped, but only loose, than the only treatment required is proper reattachment. The loose pieces of wood siding should be reattached to their backing material with the same fastening system as the original. The loose elements should be fastened securely to adjacent construction with appropriate fasteners. If any deterioration is apparent in the fasteners or backing material, it should be corrected prior to the clapboard reattachment.

W-2 **Condition:** Splitting clapboard
Treatment: Fill splits with sealant.

If pieces of siding are split, but still adhering to the underlying surface, the recommended treatment includes filling the gap with an acrylic latex sealant (not silicon) to prevent moisture and insect infiltration.

W-3 **Condition:** Cupping clapboard
Treatment: Attempt reattachment

Cupping piece of clapboard siding should be reattached to the underlying backing. If following reattachment, a single split occurs in the clapboard, it should be treated as stated in W-2. If multiple splits are incurred, the piece of clapboard should be replaced.

W-4 **Condition:** Organic growth on extant wood siding
Treatment: Mildew Removal and Application of Fungicide

Areas of wood clapboard siding that have organic growth on them should be treated with an exterior wood preservative that contains a fungicide. This preservative should be applied with a low pressure spray. This treatment should be undertaken prior to the application of a paint finish.

W-5. Condition: Moderate deterioration of wood clapboard siding (areas less than 16 - 20 square inches in size)
Treatment: Patch or consolidate

Holes and cracks in wood up to 1/2" across should be patched with a wood filler. Larger wood cracks and holes can be filled with plugs, with spaces around the plugs sealed with a filler.

When wood elements are deteriorated to the point that replacement might be contemplated, but replacing the element would be difficult or extremely costly or damaging to nearby material, they can be consolidated or patched using epoxy consolidating techniques. This technique involves the injection of sophisticated chemical compounds into the wood, either through existing cracks or through holes drilled for that purpose. The treatment may require placing forms around the wood members to contain it in the element. Once the consolidation has set, it can be sanded and painted. In place, the consolidant, if properly used, actually increases the strength of the wood over the original.

On-site maintenance staff should be properly trained in the consolidation process by specialists experienced with epoxy work before any epoxy work is undertaken. Consolidation is a two-part process and it is important to note that both parts should be undertaken for successful preservation of the historic fabric. Part I kills organic growth in the wood, and Part II (the semi-rigid epoxies) saturate porous decayed wood and then harden, thus strengthening the wood.

W-6 **Condition:** Wood siding that is rotten (advanced stage of organic growth) and has experienced advanced structural deterioration (at least 16 - 20 square inches in size)
Treatment: Remove damaged material and replace.

In the event of severe deterioration, the damaged pieces of wood clapboard siding should be removed and replaced with new material. The replacement material should be quarter-sawn, beveled wood siding that is historically appropriate to the townsite.

In some cases, clapboards may be nailed only at the bottom. In this case, the deteriorated piece of siding can be wedged out with wooden wedges and the nails cut with a hacksaw. The damaged clapboard can then be removed and the new one inserted. In other cases, the clapboards may be nailed at the top and the bottom. This situation requires more work and more care. If an entire board is to be removed, and it is nailed at the top as well as the bottom, the board should be ripped out with a chisel, making sure not to slice the building paper beneath. This will leave the upper portion of the board beneath the bottom of the board above. The lower nails can be easily removed now that they are exposed. To remove the upper nails, which are still in the upper portion of the board hidden by the next clapboard above, wedge out the board above and cut the nails carefully with a hacksaw. Then cut out the remaining damaged board with a chisel, taking small cuts to avoid damaging the adjacent, sound clapboards. Finally, place the new piece of clapboard in the opening and tap into place beneath the board above with a hammer and wood block. All replacement wood clapboard siding should be treated with a preservative prior to installation.

The same procedure can be used for removing a portion of an individual board by making vertical cuts to either side of the damaged area with a hacksaw and removing only the damaged portion.

W-7 **Condition:** Missing wood siding
Treatment: Replace missing pieces

In the event that pieces of wood siding are missing, they should be replaced with new elements that match the original in size and profile. The clapboard pieces should be quarter sawn and carefully selected so as to exclude knots. All new material should match the original in species and texture. The new wood material and backing should be backprimed and treated with a wood preservative prior to installation.

Exterior Wood Trim

Analysis of Existing Conditions

Physical investigation revealed that the lack of a protective coating at most of the wood trim elements found throughout the townsite has accelerated deterioration in several locations.

General Recommendations

Areas of wood deterioration at the buildings' exteriors, including window and door sills, should be consolidated wherever possible to preserve the existing historic fabric. However, where deterioration has destroyed the integrity of the fabric beyond consolidation, it should be replaced with in-kind fabric.

Specific Conditions and Treatment Recommendations

WT-1 Condition: Advanced structural deterioration of wood trim (at least 16 - 20 square inches)
Treatment: Removed damaged wood trim and replace

In the event of severe deterioration across areas at least 16 - 20 square inches, the damaged pieces of wood trim should be removed and replaced with new material. Deteriorated pieces of trim should be removed carefully and the backing or adjacent wood material cleaned and prepared to receive the new work. The new pieces of trim should match the dimensions and profile of the original. All new material should also match the original in species and texture. Furthermore, the new wood material and backing should be backprimed and treated with a wood preservative prior to installation.

WT-2 Condition: Moderate deterioration of wood trim (areas less than 16 - 20 square inches in size)
Treatment: Patch or consolidate

Holes and cracks in wood up to 1/2" across should be patched with a wood filler. Larger wood cracks and holes can be filled with plugs, with spaces around the plugs sealed with a filler.

When wood elements are deteriorated to the point that replacement might be contemplated, but replacing the element would be difficult or extremely costly or damaging to nearby material, they can be consolidated or patched using epoxy consolidating techniques. This technique involves the injection of sophisticated chemical compounds into the wood, either through existing cracks or through holes drilled for that purpose. The treatment may require placing forms around the wood members to contain it in the element. Once the consolidation has set, it can be sanded and painted. In place, the consolidant, if properly used, actually increases the strength of the wood over the original.

On-site maintenance staff should be properly trained in the consolidation process by specialists experienced with epoxy work before any epoxy work is undertaken. Consolidation is a two-part process and it is important to note that both parts should be undertaken for successful preservation of the historic fabric. Part I kills organic growth in the wood, and Part II (the semi-rigid epoxies) saturate porous decayed wood and then harden, thus strengthening the wood.

WT-3 Condition: Missing wood trim
Treatment: Replace missing pieces

In the event that wood trim elements are missing, they should be replaced with new elements that match the original in size and profile. New material and backing should be backprimed and treated with a wood preservative.

Foundations

Background

Almost all of the building foundations at Fayette are dolomite, which was quarried from the bluffs located just east of the townsite.

Analysis of Existing Conditions

Physical investigation revealed that several areas of presumed previous deterioration are covered with several layers of cementituous parge coating. Additionally, several areas of deteriorated mortar joints were observed. It appears that some tuckpointing has already been undertaken at various locations.

General Recommendations

Wholesale masonry restoration is not an appropriate treatment based on preservation as the treatment strategy at Fayette. However, the existing appearance of the dolomite foundation walls should be maintained to the extent possible. The primary concern for treatment at extant dolomite foundation walls is to attain watertight conditions to mitigate moisture accumulation in the buildings and to uphold structural integrity of the stone walls themselves. Repairs made at the townsite's stone foundations walls should be prioritized as follows:

1. Repair foundations at those locations that the entire building is extant. (19 buildings)
2. Repair those foundations that are fully exposed and have already received some level of repair.
3. Repair those foundations that are not currently exposed above grade (because ground temporarily stabilizing / holding them in place).

Specific Conditions and Treatment Recommendations

S-1 **Condition:** Severely deteriorated or missing pieces of dolomite
Treatment: Dolomite replacement

Only those pieces of stone that are deteriorated beyond repair or are completely missing should be replaced rather then repaired. Where replacement is required, new units should match the texture and color of the adjacent material. This can be accomplished by using dolomite found near the site (ideally, at the historic dolomite quarry).

S-2 **Condition:** Loose, cracked, or missing mortar
Treatment: Repoint mortar joints

Repointing stone walls can be considered routine maintenance. Mortar will wear much more quickly than the stone; and periodically, the old mortar should be raked out of the joints back to the point where the original mortar is still completely sound and replaced with new mortar. It is important that the new mortar be no stronger than the old. If high-strength contemporary mortars are used, they can actually be stronger than stone and exert tremendous pressure, leading to spalling and cracking of the stone. The repointing should then be done with a soft, job-mixed

mortar which consists of portland cement, lime, sand, and water. The color of the sand in the mixture should be matched with that of the sand beach at Fayette, which most likely was the sand used in the original mortar; or color pigments may be added to match the color of the existing mortar.

All joints to be repointed should be raked to a depth of not less than 3/4" at horizontal joints and 1/2" at vertical joints. The joints should be hand raked; no power tools should be used, and no hand tools which might damage adjacent masonry by chipping edges or corners should be used. All mortar residue should be removed, especially that adhering to the sides of existing stone units. No wire brushes should be used.

The raked masonry should be rinsed with a low pressure rinse to remove all loose mortar and dirt residue. The joints should be pre-soaked so that each stone unit and joint is nearly saturated but surface dry when repointed. Mortar should be applied before it has begun to set, and should be at the proper workability. The new joint should be raked to approximately 1/16 inch behind the face of the stone to preserve original joint thickness; then it should be tooled to the proper shape, and in the proper sequence, to duplicate the original appearance. No mortar should remain on vertical exposed stone surfaces. The joints should be brushed after initial curing to raise the grain.

Weep holes on stone surfaces should be maintained in location and size. They should not be covered or filled with mortar. Any weep holes that are filled with dirt or other materials should be cleaned out. When work is completed, the entire areas should be dry brushed and cleaned by hand washing with a mild detergent.

All repointing should be carried out by experienced masons familiar with all applicable material and work standards.

S-3 **Condition:** Worn and weak mortar
Treatment: Repoint all mortar joints

Depending on the quality of original material and workmanship, original mortar may weaken and deteriorate over an entire building's foundation to the point the spot repointing is no longer effective. When this point is reached, the entire foundation or an entire wall may have to be repointed. The same procedures noted in Condition S-2 (loose, cracked, or missing mortar) apply, but at a larger scale. Once an entire foundation wall is restores, proper and timely maintenance will prevent further, massive problems for a hundred years or more.

S-4 **Condition:** Stone surfaces with organic growth present
Treatment: Remove organic growth

Because areas of organic growth on limestone surfaces in the townsite are concentrated in small areas, handscrubbing is recommended. A soft natural-bristle, nylon or fiber brush should be used; steel brushes are too abrasive and leave specks that rust. The surface area of growth should be wet by sprinkling with a hose. To remove lichen, moss, ivy, and other organic growth, a commercial herbicide or household bleach should be added to the water. The affected area should then be brushed to remove the organic growth, followed by rinsing with clean water.

Wood Windows and Doors

Background

Most of the wood window sashes have been replaced at the Supervisor's Residences located along the back street (Buildings #18, 25, 26, and 27). These replacement sashes are appropriate according to historic photographs, but they were not installed properly. It was observed at several of the window openings that the bottom stop was partially removed and, subsequently, that the sash does not close properly (kicking out at the bottom). *Figure 15* shows a full stop and proper sash closure, and *Figure 16* shows a typical window where a portion of the stop has been removed.

Analysis of Existing Conditions

Both the remaining historic sash and the replacement sash found throughout the townsite have experienced deterioration from weathering due to the lack of the application of a protective finish (Figure 14). Furthermore, due to wood shrinkage, there is an extensive amount of air infiltration at existing window openings, allowing penetration of moisture into the building and drying of the window elements. Wood louvered vents have been installed in some of the second story windows at the houses located along the back road. These appear to be helping to mitigate the moisture accumulation in the residences, which has caused a considerable amount of damage and deterioration. However, additional treatment is required to completely mitigate the moisture.

General Recommendations

All wood windows throughout the townsite, including the sash, frame and sills should be re-glazed, primed, and painted. The replacement of those sashes that have deteriorated beyond repair is a high priority; most of the original and the replacement sashes located throughout the townsite have experienced excessive deterioration due to a lack of protective finish application to the wood.

The wood louvered vents that have been installed in the lower portion of the rear windows in two of the houses along the back road should be kept and maintained. They are a good way of providing ventilation into these otherwise excessively damp houses. Therefore, one vent should be installed at a minimum in the least conspicuous window opening of each of the residences that are not open to the public. These vents will help to ameliorate condensation that forms both on exposed wall and ceiling surfaces and on concealed surfaces within the walls of the buildings, especially along the back road.

Specific Conditions and Treatment Recommendations

WIN-1 **Condition:** Deteriorated wood door or window elements
Treatment: General reconditioning

Window sashes that require reconditioning should be removed from their openings and all repairs be made under shop controlled conditions. Proper sealing of openings while at the shop. Those window sashes that have loose joints should be taken apart, repaired, and reglued. Individual pieces that have deteriorated beyond repair should be replaced as necessary.

WIN-2 **Condition:** Infiltration through cracks
Treatment: Caulk joints

Wood frames dry out over time, shrinking and thus opening cracks where the frame meets the wall. Caulking compounds are available in a wide variety of properties and colors. At the time that the building exterior is painted, caulking should be done as part of the paint preparation. Care should be taken to use the appropriate composition and color for the task. Application should follow the manufacturer's instructions. All surfaces should be clean, dry, and surface primed if required. Joints more than 1/2" deep and joints where suitable backstop has not been provided, should be packed with a back-up material before applying caulking. The caulking should then be painted to match the color of the surface to which it has been applied, using the same paint material.

WIN-3 **Condition:** Window sash inoperable
Treatment: Repair or replace pulleys, ropes, and weights

This treatment should be undertaken at those buildings open to the public that will use window operation. After a window has been reconditioned, if it still does not operate properly, the window mechanism requires attention. The rope and pulley mechanism can usually be reached by removing the stops, which are generally nailed or screwed in places. Worn ropes can be replaced, and pulleys checked for proper operation. Any missing weights should be replaced; often they can be found at the bottom of the wall below the window if the rope has broken.

WIN-4 **Condition:** Glass loose, glazing compound missing or deteriorated
Treatment: Reglaze window

Glazing compound dries out over time, and may crumble and fall out of the window sash. If the glass is sound, it should remain in place and the glazing compound replaced according to standard glazing techniques. All replacement stops should match the original in size and profile. The new material and backing should be backprimed and treated with a wood preservative.

WIN-5 **Condition:** Improper window installation
Treatment: Reinstall window properly, install proper elements.

At the window openings where the bottom stop has been partially removed , a full stop should be installed, to allow proper closure of the windows sashes.

Plaster

General Recommendations

According to the preservation treatment strategy, all extant historic plaster should be retained and maintained as long as possible.

Specific Conditions and Treatment Recommendations

P-1 **Condition:** Underlying plaster in relatively good condition, with surface hairline cracking.
Treatment: Repair, patching

Surface hairline cracks are usually created during seasonal humidity change, and thus change each year. These surface cracks should be treated by first, slightly widening the crack with a sharp,

pointed tool. Then the crack should be filled with a quick-set joint compound and mesh tape bridged across the crack as necessary. Additional coats of patching material should be applied over the tape and feathered into the adjacent, sound plaster surfaces. Following application, the entire surface should be sanded and then cleaned and dried to remove any plaster residue prior to the application of a finish.

P-2 **Condition:** Severely deteriorated plaster
Treatment: Repair and / or replacement

Large, deep plaster cracks are most likely the result of structural movement in the building. Prior to any plaster repair in these areas of damage, necessary repairs should be made to the structural system to alleviate the cause of unwanted structural movement. Following such structural repairs, the plaster on each side of each crack should be removed approximately 6 inches. Extant wood lath should remain in place unless deteriorated. Following plaster removal, new metal lath should be installed directly over the existing wood lath. This should be followed by a three-coat plaster system. All new plaster should be feathered and blended with all adjacent, historic plaster to the extent possible.

P-3 **Condition:** Missing plaster (At entire wall surfaces)
Treatment: Replacement

If the plaster is missing from a large or entire wall surface, it should be replaced with new plaster. It is recommended that a two-component veneer plaster system be utilized in those spaces that are Interior Treatment Areas B or C. A two-component veneer plaster system consists of two distinct plaster materials mixed and applied individually as the base and finish coats. They can be used over gypsum base or unit masonry substrates. The gypsum base for the system consists of a gypsum core surfaced with a specially treated, multilayer paper face. The face's highly absorptive outer layers draw moisture rapidly and uniformly from the plaster mix so the mix bonds quickly to the base and does not slide during application. The face's chemically treated inner layers form a barrier that prevents moisture from damaging the gypsum core. The color of the paper surface is blue or blue gray, which is why gypsum base is often called "blue board" in the trade.

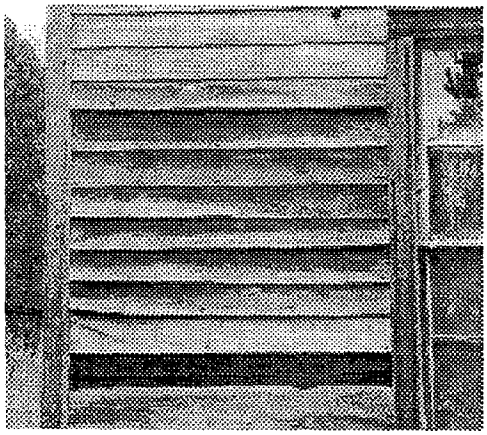
If the space is an Interior Treatment A the new plaster should consist of a three-coat, historically appropriate system. If the space is an Interior Treatment Area D (and therefore receiving minimal stabilization treatment), all failed lath and plaster should be removed for safety reasons, and no new plaster installed unless the space changes into an Interior Treatment Area A, B, or C.

Part E Endnotes:

1 U.S. Department of the Interior, National Park Service, Cultural Resources, Preservation Assistance. *The Secretary of the Interior's Standards for the Treatment of Historic Properties, 1992.* (Washington, D.C., U.S. Government Printing Office, 1992), ?.
2 U.S. Department of the Interior, National Park Service, Cultural Resources, Preservation Assistance. *The Secretary of the Interior's Standards for the Treatment of Historic Properties, 1992.* (Washington, D.C., U.S. Government Printing Office, 1992), ?.
3 U.S. Department of the Interior, National Park Service, Cultural Resources, Preservation Assistance. *The Secretary of the Interior's Standards for the Treatment of Historic Properties, 1992.* (Washington, D.C., U.S. Government Printing Office, 1992), ?.
4 U.S. Department of the Interior, National Park Service, Cultural Resources, Preservation Assistance. *The Secretary of the Interior's Standards for the Treatment of Historic Properties, 1992.* (Washington, D.C., U.S. Government Printing Office, 1992), ?.
5 U.S. Department of the Interior, National Park Service, Cultural Resources, Preservation Assistance. *The Secretary of the Interior's Standards for the Treatment of Historic Properties, 1992.* (Washington, D.C., U.S. Government Printing Office, 1992), 1.
6 *Request for Proposal, Fayette Cultural Resource Management Plan.* Michigan Department of State, 9.
7 *Request for Proposal, Fayette Cultural Resource Management Plan.* Michigan Department of State, 9.
8 *Request for Proposal, Fayette Cultural Resource Management Plan.* Michigan Department of State, 9.
9 *Fayette Townsite Museum Program Recommendations (1990 - 1999).* Working document. Prepared by the Michigan Department of State and the Michigan Department of Natural Resources. (Lansing, MI: 1989), 2.
10 John Halsey, memo to Martha Bigelow, Ruby Rogers, Thomas Friggens, 5-10-88.
11 U.S. Department of the Interior, National Park Service, Cultural Resources, Preservation Assistance. *The Secretary of the Interior's Standards for the Treatment of Historic Properties, 1992.* (Washington, D.C., U.S. Government Printing Office, 1992), 2.
12 National Heritage Corporation, Appendix A: Color and Paint.
13 National Heritage Corporation, Appendix A: Color and Paint.

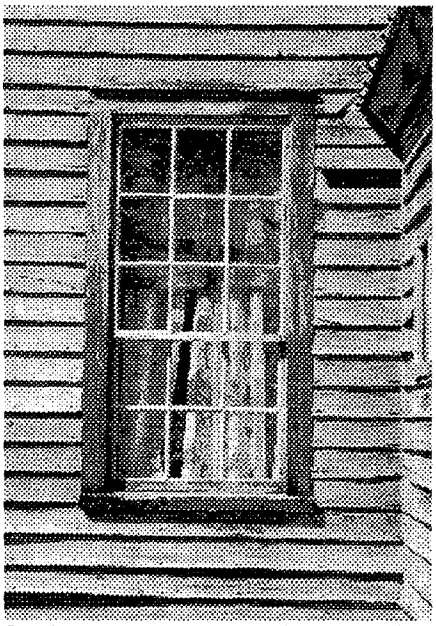
Existing Conditions Photographs

Figure 13



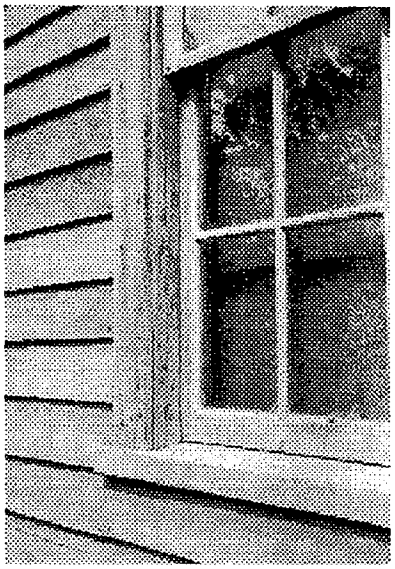
Detail view of deteriorated clapboard siding, which is present at different levels at each of the buildings, 1996.

Figure 14



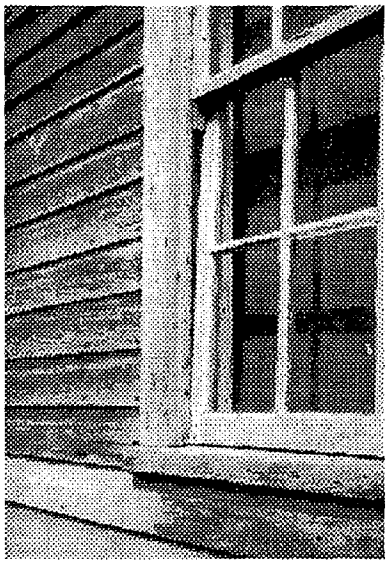
Detail view of a nine-over-six double-hung window, typical at several of the Supervisor's Residences throughout the townsite, 1996. Wood deterioration has been the result of the lack of protective finish.

Figure 15



Detail view of a window with full stop, 1996.

Figure 16



Detail view of a window that the bottom portion of the stop has been removed, and the sash is "kicking out," 1996.

INDIVIDUAL BUILDING ANALYSIS

1. Extant Buildings open to the public (excluding Furnace, Reconstructed Kilns, and Hotel):

#1 Superintendent's House
#2 Doctor's House
#7 Supervisor's Residence (near town center; only partially open to public, work underway)
#9 Supervisor's Residence (near town center)
#100 Hotel (Analysis and Treatment Recommendations contained in a separate document)
#101 Town Hall (also called Opera House)
#104 Machine Shop (has exhibits within it rather than historic furnishings)
#108 Company Office

Background

This categorization includes 8 buildings. The existing conditions of these buildings were documented in 1961 and again in the 1974 *Restoration and Stabilization* plan prepared by the National Heritage Corporation. Extensive detail was provided in the description of conditions at the Hotel (Building #1), the Superintendent's House (Building #1), and the Town Hall (Building #101). All eight of the buildings received an extensive amount of treatment following the 1974 report. These eight buildings (or at least portions of them) are all open to the public for self-guided interpretation during the park season (mid-May through mid-October).

Analysis of Existing Conditions

The emphasis of the "period rooms" and exhibits that have been created in these buildings provides a view into the lives of Fayette residents and the town's commercial activity during the years that the furnace was in operation (1867 - 1891). In several of the buildings, wood and plexiglass partitions have been constructed to create small vestibules near the entrances into the buildings. These vestibules allow visitors visual access into the "restored" interior spaces while restricting physical access and, thus, potential damage to the historic fabric and artifacts.

General Treatment Recommendations

The existing categorization of buildings within the townsite will continue to influence future treatment recommendations. However, there are some extant buildings that should ultimately change from one categorization to another. For example, there are some buildings that are currently not open to the public that should be opened to provide a more complete interpretive experience for visitors (these particular instances are discussed under the appropriate individual building descriptions). Furthermore, the reconstruction of at least one of the workers' cabins would provide an element to the interpretive experience that doesn't now exist.

According to Fayette's ten-year museum plan, the preservation and interpretation of the townsite's primary structures is essential. It states that:

> Both in structure and interpretive potential, four anchor buildings comprise the nucleus of the future museum program in the townsite. They are the furnace complex (Industrial Interpretive Zone); hotel and town hall (Commercial Interpretive Zone); and the Superintendent's House (Residential Interpretive Zone). [1]

In following this statement's goals, these four buildings will continue to be given priority for treatment. However, other structures that require immediate treatment to save historic fabric should take precedence at certain times. While these buildings can remain the focus of the museum program, the decline and deterioration of other extant resources should not be ignored.

The following treatment recommendations for the individual buildings at Fayette are subdivided into short-term and long-term recommendations. Short-term recommendations are generally those that are required for the stabilization of the structure and require immediate attention. Long-term recommendations are those that should be implemented upon the availability of funds as part of the comprehensive preservation plan of the townsite.

The following recommendations are based upon observations made during the physical investigation and historic documentation.

Superintendent's House (Building #1):

Background

The original wraparound porch at the south / east elevation, and the porch at the east elevation were both removed prior to the 1961 survey. At the one-story kitchen wing, a small window on the north elevation, and the non-historic entrance hood above the door have been removed since the 1961 survey. An extensive amount of structurally-related work was undertaken at this building by the Fayette State Historic Park between 1959 and 1974. This work included: the repair of deteriorated dolomite foundations, and the replacement of rotten wood sill plates, rotten wood joists, and other deteriorated structural framing members. Several areas of deteriorated clapboard siding were also replaced. A furnace and its related ductwork, which had been installed prior to the acquisition of Fayette by the State (1959), were also removed. The wraparound porch at the south and east elevations, and the additional porch on the east elevation, were reconstructed between 1974 and 1996 (Figure 18). However, by comparing the reconstructed wraparound porch with a photograph of the earlier porch taken in 1907 (Figure 17), it is apparent that the roof is different; it was curved, and presumably metal in 1907 while today it is angled and covered with wood shingles. Also, the current porch has metal rods extending between the porch columns serving as a handrail, which is historically inappropriate. Historic photographs (including Figure 20) reveal that there was more than one fence configuration around the Superintendent's House. The existing fence (Figure 17) closely recreates the ca. 1875 - 1881 (period of significance) fence.

Analysis of Existing Conditions

Physical investigation revealed that the entire building is faced with wood clapboard siding, with the exception of the one-story kitchen wing, which is board and batten (Figure 3).

By the initiation of the 1996 survey, the restoration of this building for public interpretation was in its last stages of treatment. All new plaster had been installed (and existing plaster repaired) at both the first and second floors, and the interior of the house was completely repainted (Figure 20). The parlor, library, and kitchen were furnished with historically appropriate furnishings representing the period that the furnace was in operation (1867 - 1891). The door leading into the parlor from the entry foyer was altered with a full plexiglass / framed viewing door, allowing visitors to view, but not physically access the "period room."

Short-term treatment recommendations

- Remove grade from the skirt board to expose at least 6" of wood around the perimeter of the building to prevent wood deterioration.

- Repair existing areas of wood deterioration near grade; follow treatments W-4 through W- 6.
- Make necessary wood clapboard siding repairs; follow treatments W- 1 through W-7.

Long-term treatment recommendations

- Although the metal handrail at the south porch is non-historic, it has been installed by the Fayette State Historic Park to provide adequate visitor safety. Although current building code states that a handrail is not required at a platform that is less than 30 inches above grade, this rail should remain in place to provide additional visitor safety.
- Construct and install historically accurate (based on photographic evidence) shutters at all of the windows where they were originally located.
- Remove the existing south porch and reconstruct with historically appropriate materials and configuration, based on evidence found in historic photographs. This includes reconstructing the porch roof with a sweeping slope as seen in Figure 17 rather than the existing straight-line slope; reconstructing historically appropriate porch columns in historically appropriate configurations and locations; and the original porch did not extend to the west edge of the facade.
- Continue interior restoration.

Treatment Recommendations for Barrier-Free Accessibility

Handicapped accessibility into the building can be achieved at the entrance located near the north end of the west elevation. Accessibility into the building will require regrading outside of the entrance to provide grade that is level with the first floor of the building. Furthermore, a path constructed of accessible material would need to lead to this entrance. Once inside the building, existing opening clearances need to be maintained at 32" where possible to allow an accessible route through the interior.

Doctor's House (Building #2):

Background

This building has received extensive treatment during the last several years, both at the interior and at the exterior.

Analysis of Existing Conditions

The 1996 physical investigation revealed that the structure is in good condition overall, with only a few minor areas of deterioration. The mortar joints near grade at the north elevation of the building have deteriorated (Figure 24). An extensive amount of the original clapboard siding remains on the building. Due to the "scrubbing" of the surrounding vegetation that has been implemented around the building, moisture accumulation has been extensively reduced and the architectural fabric of the building in good condition. Most of the original clapboard siding remains intact, with a few exceptions. The clapboard siding has been replaced at the bottom of the upper floor (near the brick lower (foundation) wall), and there has been some area of minor replacement at the south elevation.

Both of the second floor porches have wood stairways leading to grade and have been reconstructed with historic accuracy (Figure 22). The stairs, which had already been reconstructed once (however, it was not the appropriate size, as they extended the entire width of the building) were in a dilapidated condition during the 1961 survey. Drawings for their historically appropriate reconstruction were produced in 1961. Since their reconstruction, portions of the balustrades and handrails, and a few treads have deteriorated, which was likely caused by the absence of a protective sealant or finish on the wood. The 1961 drawings also contain a detailed schedule for window replacement. Three new wood sashes were observed at the second floor. The door sill at the ground floor door of the north elevation has rotted.

All of the interior finishes have been restored and the parlor and kitchen (at the second floor) contain historically appropriate furnishings that represent the 1867 - 1891 period (Figure 25). The restored finishes are in generally good condition, including the 1 x 6 painted wood flooring, the painted plaster walls and ceilings, and the painted wood trim throughout the house.

The upper wood panels at one of the first floor doors have been replaced with glass (common for viewing into adjacent room without physical access) which was probably part of an earlier exhibit.

Short-term treatment recommendations

- Tuckpoint areas where mortar joints have deteriorated; follow treatments S-2 and S-3.
- Replace, in kind, the rotted door sill at the grade level door opening on the north elevation;follow treatment WT-1.
- Repair the area of damage and deterioration at the exterior stairs. Both consolidation and replacement will be required; follow treatment WT- 1 and WT-2.
- Repair (or replace if beyond repair) the areas of deteriorated wood clapboard siding; follow treatments W-1 through W-7.

Long-term treatment recommendations

- Remove the surface mounted conduit that is located at the ground floor and is no longer used.
- Install historically appropriate furnishings and/or exhibits at the ground floor.

Treatment Recommendations for Barrier-Free Accessibility

The first floor of this structure is almost level with the existing grade and therefore an accessible entrance can be provided. However, there is not an accessible path to reach this building.

Supervisor's Residence, (Building #7):

Background and Analysis of Existing Conditions

This building was in the process of restoration treatment during the 1996 physical investigation. A wood porch at the front entrance, which had previously deteriorated and was missing, has been reconstructed by the Fayette State Historic Park, (Figure 35). A 1907 photograph of the north elevation shows a wood plank door which was probably not original. Physical investigation revealed that a door with a wood panel configuration was installed in its place.

The plaster surfaces had been repaired and refinished at the two first floor rooms that are open to the public. However, cracking and spalling plaster was observed during the physical investigation. This water damage to the recently restored materials was likely caused by the lack of protective sealant / finish on the exterior wood surfaces, including the clapboard siding and the roof. Physical investigation also revealed water damage at the casing, sill, and adjacent plaster surrounding the north window of the east elevation.

The one-story kitchen wing that was attached to the south end of the building was either removed or simply deteriorated. Physical investigation revealed portions of the dolomite foundations of this wing (Figure 36).

Short-term recommendations

- Repair (or replace if beyond repair) the areas of deteriorated wood clapboard siding; follow treatments W-1 through W-7.
- Mitigate the cause of water damage at the north window of the east elevation, (using caulk or similar).
- Following the application of a protective finish at the exterior wood surfaces and the necessary roof repairs, patch and repair the areas of plaster that have experienced water damage at the building's interior; follow treatments P-1 and P-2.
- Stabilize the portions of the dolomite foundation of the former kitchen wing adjacent to the south elevation of the building.

Long-term recommendations

- Finish the restoration treatment at the first floor; install historically appropriate furnishings and/or exhibits.

Supervisor's Residence (Building #9):

Background

At the time of the 1996 survey, the restoration of this building for public interpretation was in its last stages of treatment. New plaster had been installed (and existing plaster repaired) at several rooms of the first floor. The kitchen area at the rear of the house has wood board walls, which were refinished. The parlor, a bedroom, the kitchen, and the pantry have been furnished with historically appropriate furnishings representing the period that the furnace was in operation (1867 - 1891). A small vestibule of wood and plexiglass has been created around each of the entrances, allowing visitors visual access into the restored spaces but not physical entry. Furthermore, top two wood panels of the door leading into the front bedroom were removed and replaced with glass for viewing. Some time following the town's abandonment, the original vestibule constructed adjacent to the front entrance had been removed and a hood overhang constructed in its place (Figure 37 and IV-8). Since the 1961 drawings, the wood frame vestibule has been reconstructed. A wood porch and stair has been built leading to the door on the east elevation, due to the level of the door threshold being a few feet above grade. Although there is no photographic evidence, it is likely that there was always some form of stair at this entrance.

Analysis of Existing Conditions

Physical investigation revealed several new water stains and cracks through the wallpaper the restored walls. This was most likely the result of water damage due to the lack of protective finish at the exterior wood surfaces. Furthermore, the middle room of the first floor (Dining Room) restoration was underway during the 1996 physical investigation, however there was already evidence of water damage at the chimney.

The entire roof of the building was replaced in 1995. Furthermore, several areas of the clapboard siding have been replaced at all four elevations of the house. Some of this replacement clapboard consists of rough-sawn pieces, which are historically inappropriate and don't lay properly. There are small wood vents located along the dolomite foundation (two each on the west and east elevations). It is assumed that these were installed by the park since 1961. The perimeter sill plate and subsequent overlying clapboard were also replaced by the park in the 1970s. In addition, since the 1961 drawings, a one-story shed-roof addition that was connected to the south elevation and was faced with board and batten siding was removed. It appears that almost all of the clapboard at the south elevation has been replaced.

Short-term treatment recommendations

- Install flashing around the intersection of the chimney and roof, and seal the top of the chimney to mitigate water infiltration into building's interior; follow treatment R-2.
- Following the application of a protective paint finish at the exterior wood surfaces and necessary roof repairs, patch and repair the areas of plaster that have experienced water damage at the building's interior; follow treatments P-1 through P-3.
- Repair (or replace if beyond repair) the areas of deteriorated wood clapboard siding; follow treatments W-1 through W-7.

Long-term treatment recommendations

- Replace the non-historic rough-sawn clapboard siding that has been installed with historically appropriate beveled siding.
- Finish the restoration of materials and finishes at the dining room, install historically appropriate furnishings and/or exhibit.

Town Hall (Building #101)

Background and Analysis of Existing Conditions

This building is the second largest extant wood frame building in the townsite, with the hotel being the largest. The two-story building has a partial basement located under its northern half, which is accessed by a double-leaf door that is level with grade. The two doors in this opening were bolted together and the hardware altered to create one large single swing door. The wood threshold at this opening has experienced excessive deterioration and rot. A considerable amount of clapboard siding, which had deteriorated, was replaced in the 1960s and 1970s. However, physical investigation revealed that, due to the lack of a protective finish, an extensive amount of the replacement siding has also deteriorated, (Figures 66 and 67).

Historically, a large pulley apparatus was constructed adjacent to the west elevation of this building, which carried ice from the nearby Icehouse (Building #133) into the meat cooler that was located at the northwest corner of the first floor. Physical investigation revealed that the opening for the apparatus on the west elevation has been patched and covered with wood siding. The entire pulley apparatus itself was gone when the State of Michigan acquired the property in 1959.

Historic documentation suggests that this building originally had pulverized charcoal insulation in its exterior walls. Physical investigation, prior to the restoration of the interior finishes of the building, revealed some evidence of this insulation in the walls surrounding the meat cooler.

The first floor interior walls were altered during the early part of this century, but were reconstructed in their original locations shortly following the 1974 report. Several of the spaces located at the first floor have been rehabilitated and serve as "period rooms" exhibiting historic finishes and furnishings that represent the period during which the furnace was in operation (1867 - 1891). The "period rooms" include: the butcher shop at the northeast corner of the building which was reconstructed in 1990, the barber shop which was reconstructed in 1991, and the second floor auditorium / hall space which was restored in 1992. Historic photographs reveal that a raised wood platform, with steps leading to grade at its southern end, provided access to the entrances of the two north spaces of the building (the butcher

shop and the barber shop). This platform had either deteriorated or was removed by 1959 (Figure 65). It was reconstructed in the 1986 (Figure 66).

The interior wall and ceiling surfaces at the first floor are covered with painted horizontal beaded board. Reconstructed partitions and areas of the exterior walls that had previously deteriorated have been faced with beaded board to match the original. Plexiglass has been installed above the counter in the butcher shop, restricting physical access by visitors to the area near the door, but facilitating visual access of the entire space. Similarly, the south room has exhibits interpreting the role of the company doctor. An interior door opening (leading into the barber shop) has been infilled with plexiglass to allow visual access into the barber shop, but it is not physically accessible. The flooring, which consists of tongue and groove boards laid diagonally, has experienced some deterioration near each of the exterior entrances into the building. It appears that most of the flooring in the butcher shop room is replacement, but there is still some cupping near the doorways that are constantly exposed to the weather. An extensive amount of the trim at the east rooms of first floor appears to have been reconstructed with historic accurateness.

By the 1920s, the second floor had experienced excessive deterioration, as shown in Figure 68. All of the materials in this space were restored and refinished in 1992 to depict its 1880s appearance. Historic graffiti depicted on the walls of the backstage area from traveling performers have been preserved behind plexiglass.

Short-term recommendations

- Replace the severely deteriorated clapboard siding along the east elevation, especially those pieces of siding that have completely fallen off, exposing the underlying building paper. This treatment is of high priority due to the potential of detrimental moisture penetration into the building, which has an extensive amount of restored historic fabric within. Keep historic fabric as much as possible, therefore replace only that siding which is beyond repair. Follow treatments W-1 through W-7.
- Repair areas of damaged wood flooring near the entrances. Replace those pieces of flooring that are beyond repair. Apply a protective finish to mitigate future damage from the weather.

Long-term recommendations

- Remove the non-historic hardware and return the basement door at the north elevation to its original double-swing configuration.

Machine Shop (Building #104)

Background

The machine shop is the only extant dolomite structure at Fayette that retains its original wooden truss roof system. The roof truss systems of the Company Store (Building #102A) and the Furnace stacks have deteriorated and are completely gone. The machine shop is also the only one of several workshops and related buildings that lined the open area that extended north-south in the town center (Figures II-6 and III-25).

Analysis of Existing Conditions

Physical investigation revealed that all of the original metal shutters remain intact on this building, albeit, extensively rusted. Furthermore, a conspicuously lighter-colored mortar was observed at the area of the

reconstructed wall at top of the south elevation. The roof and top of this wall had completely deteriorated, but were reconstructed in 1995.

Most of the original interior finishes of this building have been maintained and a non-destructive exhibit depicting life at Fayette has been installed (Figure 73).

Short term recommendations

- Repair the damaged areas of the metal shutters. All loose or scaling rust material should be removed from the shutters by gently scrubbing with a steel brush. Cleaning and repair should be followed by the application of a rust-inhibitive finish to mitigate further oxidation and deterioration. The manufacturer's instructions for the application of the rust-inhibitive finish should be checked prior to application for additional preparation procedures.

Long-term recommendations

- Install an exhibit that is specific to this structure rather than to the townsite as a whole; relocate the existing exhibit to the visitor orientation area.

Company Office (Building #108)

Background

During the early part of this century, this building was adapted for use by commercial fisherman. It has been said that it was used as a garage for repairing automobiles (and / or boats?). Alterations were made to the building in conjunction with the change in use, including the construction of a large overhead door at the east elevation, and removal of the former door (Figure 75). The Department of Natural Resources restored the original fenestration of the east elevation in 1970 (Figure 77). They also reconstructed the historic interior partitions that had been constructed, removed the concrete floor, and installed historically appropriate wood flooring (Figures 78 and 79). The 1974 *Restoration and Stabilization* report included an interior paint analysis of this building. The interior of the first floor has been finished based on the paint analysis. Furthermore, it is furnished to represent the period during which the furnace was in operation (1867 - 1891).

Analysis of Existing Conditions

The wood steps leading to the west entrance have been reconstructed. These steps rest on grade and have differentially settled. Originally, the second floor of this building was accessed by an enclosed stair attached to the south elevation of the building (Figure 74). This stair either deteriorated or was removed prior to the State of Michigan's acquisition of the property, and is now only accessed by ladder at a window (Figure 75). Physical investigation revealed demarcations in the exterior clapboard siding of the south elevation, indicating the location of the former connections of the walls of the stair enclosure.

Short-term recommendations

- Repair steps leading to the west entrance that have differentially settled.

Long-term recommendations

- Reconstruct the stair and enclosure along the south elevation to provide access to the second floor.

Treatment Recommendations for Barrier-Free Accessibility

Physical investigation revealed that the existing grade is not much lower than that of the first floor. Therefore, it is recommended that minimal grading take place to provide level access into the building. (Earthen ramp)

2. Extant buildings which are not open to the public:

Generally, these buildings have an extensive amount of extant historic fabric, but it is in poor or deteriorated condition. Although some stabilization work has taken place at their exteriors, the interiors of these buildings are not open to the public. The exteriors of these building are maintained, and paths for visitor access run near them. These buildings will remain closed to the public, at least for the short-term. This categorization includes 7 buildings:

#3	Supervisor's Residence
#4	Supervisor's Residence
#18	Supervisor's Residence
#25	Supervisor's Residence
#26	Supervisor's Residence
#27	Supervisor's Residence
#30/31	Supervisors' Duplex Residence

The typical interior finishes at the interior of a majority of these buildings (#18, 25, 26, 27, and 30/31) consists of: 1" x 6" tongue and groove pine flooring, lath and plaster walls and ceilings, and flat wood trim around the door and window openings. The casing is 7/8" x 4 1/4" flat boards and 7/8" x 5 3/4" flat profile baseboards.

Supervisors' Residence (Building #3)

Background and Analysis of Existing Conditions

This house continued to be used as a summer cottage through the 1950s. However, since that time it has experienced excessive interior deterioration. The ceiling framing of the back space (kitchen) has been damaged and a lot of it is missing, including the lath and plaster that were once attached to it. There is also a wood ledge from a former chimney (Figure 28). Physical investigation revealed that the interior finishes are in slightly better condition at the front rooms of the house. These finishes consist of painted pine flooring, painted plaster walls and ceilings, and painted wood trim. Physical investigation at the building's interior revealed that the sill plate has deteriorated, and is missing in several sections along the building's perimeter. The roof is scheduled for replacement.

The exterior wood steps are missing that once led up to the front (east) door. Physical investigation revealed that the roof has experienced excessive deterioration. However, most of the original clapboard siding at both remains intact. The wood clapboard along the north elevation appears to be original and is in exceptionally good condition. There has been some minor siding replacement at the south elevation. Most of the paint has worn off of this building, while there is quite a bit left on Building #4. Interesting six panel wood doors are typical throughout.

No physical evidence was observed above grade of the former one-story wing that was attached to the south end of the house (Figure 26). However, future archeological investigation may reveal evidence of it.

Short-term recommendations

- Repair areas of deteriorated clapboard siding; replace those areas that are beyond repair; follow treatments W-1 through W-7.
- Replace the sill plates in the areas that have deteriorated and where the plates are missing.
- Install a new historically appropriate roof.
- Install wood louvers in at least two of the window openings to provide ventilation to the building's interior.

Long-term recommendations

- Reconstruct the missing ceiling / floor framing at the rear of the house (above the kitchen).
- Reconstruct the wood stair leading to the front (east) entrance of the building (base design on historic photographs).
- Restore the interior materials and finishes and install historically appropriate furnishings and / or exhibits; plaster repair should follow treatments P-1 through P-3.
- Undertake archeological research to reveal the foundation of the former one-story wing attached to the south elevation.

Supervisor's Residence (Building #4)

Background

This house has the same configuration as Building #3, with the exception of a few minor modifications, including the addition of a small, shed roof kitchen addition attached to the rear (west elevation) of the building (Figures 31 and 32). During the early years of the state park's operation of Fayette, this house was remodeled and used as a residence for the park manager. Alterations included: the installation of a contemporary kitchen and bathroom (which have since been removed), the installation of a furnace and brick chimney, and the installation of a water pump that drew water from a line connected to a well near the Superintendent's House (Building #1). This well service was abandoned in 1985 when water distribution lines were installed throughout the townsite.

Historic photographs indicate that there were once shutters on at least the windows of the east elevation of the building. However, a 1907 photograph (Figure 30) reveals that the shutters on the east elevation were already damaged and some were even missing by that time. Figure 30 also shows the wood porch and steps that were constructed adjacent to the front (east) entrance. No physical evidence of these stairs remains.

Analysis of Existing Conditions

Physical investigation revealed that the roof of the building has experienced excessive deterioration. Physical investigation also revealed that the small kitchen addition is faced with board and batten siding, while the rest of the house is clapboard siding. There is an extensive amount of paint left on this building. The bottom of the siding at the lean-to kitchen is currently below grade due to grade build-up. It appears that there has been no clapboard siding replacement at this building. Four vents were observed on the building, presumably installed in the 1960s when it was used as a residence; they are located near the top of the gable of the main portion of the house at both the north and south elevations, and one each on both the north and south elevations of the lean-to kitchen addition (Figure 32). These were most likely installed following the 1961 drawings (because they do not show up on them) while the building

was being used a park manager's residence. The window sash is missing from the south basement window at the east elevation.

Short-term recommendations

- Install a new, historically appropriate roof.
- Remove grade to reveal at least a 6" exposure of the structure to prevent deterioration at the lean-to kitchen addition.
- Monitor the existing four vents to make sure they remain free of debris and allow ventilation into the building.

Long-term recommendations

- Construct and install historically accurate wood shutters at all of the windows where they were historically located.
- Remove the non-historic chimney at the south elevation.
- Reconstruct the wood stair leading to the front (east) entrance of the building (base design on historic photographs).

Supervisor's Residence, (Building #18)

Background and Analysis of Existing Conditions

The clapboard siding that covers three of this building's elevations has extensively deteriorated in several areas (Figure 41). An extensive amount of moss has grown on the roof and the cedar shingles are extensively deteriorated, and roof replacement has already been scheduled. The rear (east) elevation of the building is faced with board and batten siding. It was most likely not replaced with clapboard like the rest of the house (ca. 1870) because it was enclosed within a one-story addition, which is no longer extant. However, evidence of the addition remains, including portions of its dolomite foundation, and a board nailed to the board and batten that the rafters were attached to and another board that the ceiling was attached to (Figure 42). The bottom of the board and batten siding and the 1 x 8 skirt board along the east elevation have experienced extensive rot. An area of the clapboard (which appears to be replacement) has cupped at the north end of the west (front) elevation. A bat house has been installed near the top of the east elevation.

The interior of the building has accumulated an extensive amount of moisture, resulting in the deterioration of the plaster walls and ceilings, and the growth of mold and fungus.

Physical investigation also revealed a three compartment (three door) privy located just northwest of this building, which is assumed to be original to the townsite (Figure 43). This is one of the only remaining historic privies at the townsite, and it is in a serious state of deterioration.

Short-term recommendations

- Repair areas of deteriorated clapboard siding; replace those areas that are beyond repair; follow treatments W-1 through W-7.
- Install a new, historically appropriate roof.
- Install wood louvered vents in at least two of the window openings (in the most obscure locations from public view).
- Repair the deteriorated bottom portion of the board and batten siding on the east elevation and repair (or replace if too deteriorated) the skirt board.

Long-term recommendations

- Stabilize the dolomite foundation of the former kitchen wing.
- Reconstruct the wood stair leading to the front (west) entrance of the building (base design on historic photographs).
- Stabilize the three-compartment privy located northwest of the building.

Supervisor's Residence, (Buildings #25)

Background and Analysis of Existing Conditions

Stabilization treatments were undertaken at this building in the 1970s and 1980s. This work resulted in the replacement of a significant portion of original clapboard siding, including almost all of the siding at the south elevation and most at the lower half of the west elevation. Additionally, the vegetation around the building has been "scrubbed" to the east (toward the bank of hill behind it) to a distance of approximately 5 - 10 feet from the building. There are two interesting metal hooks attached to the west (front) elevation, their former purpose being unknown. The 1974 report states that at that time, the entire north elevation was faced with board and batten siding, which was in a deteriorated condition. This has since been replaced with clapboard siding. Physical investigation at the building's interior revealed that the original clapboard siding was installed directly over the original board and batten siding (only the battens were removed).

The cedar shingles have been removed from the roof, and the only cover remaining is felt roofing, which is held down with temporary wood batten strips. An extensive amount of moss is growing on this roof surface. The basement window at the west elevation has been replaced with a wood louver since the 1961 drawings, and has since rotted. A portion of the siding has been replaced on the east elevation and there is a vertical board, was there an addition?

Physical investigation at the building's interior revealed that a significant portion of the first floor ceiling is missing, and temporary shoring has been installed to support the damaged ceiling joists. The building was sealed (all window and door openings boarded up) by the State in the 1960s, and the interior of the building has accumulated an extensive amount of moisture, resulting in the deterioration of the plaster walls and ceilings, and the growth of mold and fungus. Physical investigation revealed no finish treatments in the attic, suggesting that this was not an occupied space.

Short-term recommendations

- Install a new, historically appropriate roof.
- Install full exterior stops at all of the window openings; follow treatments WIN-3 and W-5.
- Repair the areas of deteriorated original siding; replace those areas that are beyond repair or those that are non-historic with historically appropriate beveled siding; follow treatments W-1, W-2, W-3, W-5, and W-6.
- Scrub mildew from the existing clapboard siding that is to remain; follow treatment W-4.
- Reconstruct the temporary shoring at the interior to better support the load of the second floor until it can be reconstructed.

Long-term recommendations

- Reconstruct the wood stair leading to the front (west) entrance of the building (base design on historic photographs).

- Reconstruct the missing ceiling / floor framing.

Supervisor's Residence, (Building #26)

Background

Stabilization treatments were undertaken at this building in the 1970s and 1980s. This work resulted in the replacement of a significant portion of original clapboard siding. Additionally, the vegetation around the building has been "scrubbed" to the east (toward the bank of hill behind it) to a distance of approximately 5 - 10 feet from the building. A bat house has been installed near the roof gable on the east elevation.

Analysis of Existing Conditions

Algae and fungi growth was observed on the clapboard siding along the roof line at the intersection of the one-story wing of the house (Figure 51). Extensive moss on the roof of the second floor of the east elevation was also observed. There is only a small amount of moss growth on the roofs of the other elevations, with the least being on the south. There is evidence of spalling brick and deteriorated mortar joints at the chimney on the one-story wing of the house, and both chimneys are in need repair. There is a large gap between the wood sill plate and dolomite foundation at the south end of the west elevation. It appears that all of the window sashes at this building are original.

Physical investigation revealed that the interior of the building has accumulated an extensive amount of moisture, resulting in the deterioration of the plaster walls and ceilings, and the growth of mold and fungus. The basement window at the west elevation, and the lower portion of one of the second floor windows at the east elevation, have had wood vents installed to provide ventilation into these otherwise closed spaces. The combination of limited vegetation scrubbing and a wood louvered vent, which was installed in one of the rear windows of second floor, has also decreased moisture accumulation within the building (Figure 54). The stair leading to the basement has been removed.

Approximately the bottom two feet of clapboard siding has been replaced around the entire perimeter of the building. This was most likely done in conjunction with the replacement of the deteriorated sill plate in the 1970s. There are also selective areas of replacement clapboard located elsewhere on the building. Historically, there was a wood porch and steps located at the two entrances of the west elevation (at the reentrant corner) (Figure 49). Figure 50 shows this porch was rebuilt by 1907 and had open risers. No evidence of this porch remains.

One of the heavy timber posts and one of the round cedar posts, both inlaid in the foundation wall, have been repaired, but are still not in good condition. Several areas of the dolomite foundation were observed to have received several thick layers of parging, and the dolomite is no longer visible beneath. Furthermore, the foundation wall at the south elevation is extensively leaning outward at the center of the wall. New wood sills have been installed at each of the exterior door openings.

The existing wood window sashes were apparently constructed prior to the 1974 survey, but were installed after it. A few original sashes at the first floor windows of the north elevation were observed.

Short-term recommendations

- Scrub mildew from the existing clapboard siding that is to remain.
- Apply fungicide to areas of the clapboard siding that have algae and fungi growth.
- Caulk the gap between the wood sill plate and the dolomite foundation at the south end of the west elevation.

- Install another wood louvered vent (at the east or north elevation) in addition to maintaining the existing one.

Long-term recommendations

- Tuckpoint and otherwise repair damaged chimneys, based on instructions and parameters set forth in the *Material Treatment Recommendations*.
- Reconstruct the wood stair leading to the front (west) entrance of the building (base design on historic photographs).
- Replace deteriorated window sashes.

Supervisor's Residence, (Building #27)

Background and Analysis of Existing Conditions

A 1907 photograph of the building (Figure 55) indicates a chimney at the west end of the one-story wing of the house. The 1996 physical investigation revealed that this chimney is no longer extant, and its former roof opening has been covered. A bat house has been installed near the top of the gable at the east elevation. New wood sills have been installed at each of the exterior door openings. The cedar and heavy timber posts in the foundation have been replaced and are in good condition. An extensive amount of the clapboard siding has been replaced at the west elevation and a small portion on the north elevation. The rest appears to be original. Some of the replacement clapboard siding that had a green tinted sealer applied to it. Algae and fungi growth was observed on the clapboard siding along the roof line at the intersection of the one-story wing of the house (Figure 58).

Physical investigation revealed deteriorated parging and mortar joints at several areas of the dolomite foundation. Also, a lot of moss on the foundation wall, especially at the reentrant corner of the east elevation was observed, likely the result of a lack of sunlight, wind to carry away moisture.

Physical investigation revealed that the interior of the building has accumulated an extensive amount of moisture, resulting in the deterioration of the plaster walls and ceilings, and the growth of mold and fungus. The combination of limited vegetation scrubbing and a wood louvered vent, which was installed in the lower half of one of the rear window openings of second floor, has also decreased moisture accumulation within the building. The stair leading to the basement has been removed. However, missing plaster was observed throughout the interior, and that which remains is wet to the touch.

Short-term recommendations

- Apply fungicide to areas of the clapboard siding that have algae and fungi growth.
- Install wood louvered vents in at least two of the window openings, (in the most obscure locations from public view).
- Tuckpoint the areas of deteriorated mortar joints at the dolomite foundation, based on instructions and parameters set forth in the *Material Treatment Recommendations*.

Long-term recommendations

- Reconstruct the wood stair leading to the front (west) entrance of the building (base design on historic photographs).
- Reconstruct the brick chimney at the one-story portion of the house.

Duplex Supervisors' Residence, (Building #30/31)

Background and Analysis of Existing Conditions

Although there were originally four duplexes constructed at Fayette, this building is the only extant one. The house continued to be used through the 1950s as a summer cottage. Two openings, one each at the first and second floor interior partition walls, were created to change the house into a single family residence sometime after its initial construction. The original board and batten siding (a lot of it replaced in-kind, though) remains on the rear (north) elevation of the building, although there have been several changes to the fenestration, including the replacement of doors with windows, and later, the removal of the windows. Replacement clapboard siding was observed near the bottom of the south, north, and west elevations, which was likely installed in conjunction with the sill plate replacement, ca. 1974. Up around the front door in the north half of the building too. The 1961 measured drawings indicate that there used to be a small shed roof addition attached to the rear north entrance, but it has since been removed.

The 1996 physical investigation revealed that the rear sill plate, a section of the wood floor framing, and the finish flooring along the east end of the building had been reconstructed by the park. New partition wall and lath, too? Both of the basement windows have been changed to wood vents. Some deteriorated mortar joints at the chimney were also observed. There are areas of missing ceiling and wall plaster throughout the house, and missing trim. The door casings have been removed to permanently fix the doors shut to prevent vandalism.

Short-term recommendations

- Tuckpoint the areas of deteriorated mortar joints at the dolomite foundation, based on instructions and parameters set forth in the *Material Treatment Recommendations.*
- Install wood louvered vents in at least two of the window openings (in the most obscure locations from public view).
- Tuckpoint and otherwise repair damaged chimneys, based on instructions and parameters set forth in the *Material Treatment Recommendations.*

Long-term recommendations

It is highly recommended that this structure be opened to the public for interpretation. It is the only remaining duplex at Fayette, and would be an interesting addition to the interpretive experience. Treatment recommendations would include all that is necessary to apply Zone ? treatment. These treatments should include:

- Reconstruction of the wood stairs leading to each of the front (west) entrances of the building (base design on historic photographs).
- Removal of the non-historic openings at the interior joining the two separate living spaces.
- Restoration of the interior materials and finishes.
- Installation of historically appropriate furnishings and/or exhibits.
- The provision of handicapped accessibility at first floor as part of long-term treatment.

3. Extant building foundations (Ruins):

This categorization includes 21 building ruins. These are the ruins of buildings that have completely deteriorated with the exception of their dolomite foundations. Most of the foundations are generously exposed above grade and (enough left) indicate the overall plan dimensions of the former structure they once supported. These foundations are:

#5	Boarding House
#6	Supervisor's Residence
#8	Supervisor's Residence
#10	Supervisor's Residence
#11/12	Supervisors' Duplex Residence
#13	Supervisor's Residence
#14	Supervisor's Residence
#16/17	Supervisors' Duplex Residence
#19	Supervisor's Residence
#20/21	Supervisors' Duplex Residence
#22/23	Supervisors' Duplex Residence
#28	Supervisor's Residence
#29	Supervisor's Residence
#63	Supervisor's Residence
#102A	Company Store
#102B	Company Warehouse
#103	Blacksmith Shop
#105	Carpenter Shop
#111	Small stock barn (one of three)
#113	Large stock barn
#154	St. Peter the Fisherman Catholic Church

Company Store and Warehouse (Buildings #102A and B)

These structures received extensive stabilization treatment in 1993, including the stabilization and reconstruction of the upper portion of their dolomite walls, which were capped with dolomite coping. Additionally, maintenance "scrubbing" of the vegetation around this structure has been on-going. Overall, due to both the treatments and the removal of detrimental vegetation, these buildings appeared in stable and sound condition during the 1996 physical investigation.

All other ruins:

With the exception of the Company Store / Warehouse, the rest of the ruins (foundations) found throughout the townsite vary from a few inches above grade to a few feet above grade. Examples include: Building #10 (Figure 80) whose walls stand approximately four feet above grade to Building #11/12, which consists of partially intact walls at its south end, to only piles of rubble dolomite at its east end (Figure 83). All of the foundations observed were entirely dolomite with the exception of Building #20/21. This foundation is partially comprised of large masonry units of unknown origin (Figure 84).

Short-term recommendations at all other ruins

All potentially detrimental vegetation, especially trees with significantly large roots, should be removed from the areas adjacent to the foundations. The adjacent smaller vegetation should also be "scrubbed" as part of a cyclical maintenance program to a distance of at least ten feet from any extant foundation. Furthermore, all vegetation that has grown on top of and within the existing foundations' walls should be carefully removed, creating as little damage to the integrity of the walls as possible. The top surfaces of the remaining portions of walls should be rebuilt, and tuckpointed as necessary, to provide a surface with positive drainage. Tuckpointing will help to mitigate water infiltration into the remaining wall structure. All tuckpointing should be based on the instructions and parameters set forth in the *Material Treatment Recommendations*. Limited reconstruction should occur (pieces of dolomite that are loose should be

reattached if their original placement is known.) Priority should be given to those foundations that currently have the most material remaining above grade, are the most stable and require the least amount of reconstruction.

Long-term recommendations

- The employment of a mason by the Fayette State Historic Park for continuous repair and stabilization of the extant foundations would be the most proactive approach toward the preservation of these cultural resources.
- Regrade around the structures to facilitate water drainage away from them.

Physical observation revealed that vegetation is growing on top of several areas of the foundation walls. In addition, large trees have grown within the perimeters of the foundations (Figures 80 and 82). In several areas, the vegetation has damaged these ruins. Furthermore, earth pressure against these walls has resulted in bowing and sagging in several areas. The current slope of the grade adjacent to several of the foundations facilitates drainage toward the walls rather than away from them, which is preferred.

4. Sites of former buildings:

These are the locations of former buildings within the townsite where there is no remaining physical evidence of the actual structure. The locations have been determined by examination of historic documents and related adjacent features and structures that are still extant. Several sites of former buildings have been identified within the townsite. These sites include:

#15	Supervisor's Residence
#24	Supervisor's Residence
#32	Supervisor's Residence
#50	Workers' Cabins
#106	Shed
#107	Shed
#109	Barber Shop
#110	Small stock barn (one of three)
#112	Small stock barn (one of three)
#126	Garage
#127	Fish Shack Building
#128	Hay Barn
#129	Stock House (Dock Building)
#130	Granaries
#131	Jail
#132	Engine round house
#133	Ice House
#134	Grain Elevator
#135	Sawmill
#136	Dock Sheds (three buildings)

Workers' Cabins (Site #50)

Analysis of Existing Conditions

Depressions from some of these former structures have been revealed during recent archeological investigation. These depressions have been maintained.

Treatment Recommendations

It is recommended that at least one of the workers' cabins be reconstructed in its original location. This reconstructed building would represent to the visitor an integral aspect of Fayette life which otherwise is not represented: that of the common laborers. Most of Fayette's population lived in these cabins, and only a select few lived in the supervisors' residences that remain. This would add to the interpretive diversity (have a juxtaposition of a worker's cabin, a supervisor's residence, and the superintendent's house. This would provide a full view / understanding of the social class system that was at Fayette.

It is thought that a historically accurate reconstruction is achievable through archeological findings and historic photographic documentation. Without these cabins, the only form of residential architecture that is currently represented to visitors is that of the company supervisors.

Existing Measured Drawings Analysis

The most recent physical survey and preparation of measured drawings documenting the site were prepared in 1961 for the Michigan Department of Conservation, Parks and Recreation Division. These drawings were used during the 1996 physical investigation of the site to document alterations that have taken place since that time. Overall, these drawings represent quite accurately the extant structures. Some alterations have been implemented by the park and are noted under the descriptions of the respective structures.

Furthermore, some apparent errors were observed. Such observed errors were minor, such as the depiction of the wrong number of divided lights in window sashes, and a few missing facade elements.

Structural Deficiencies Analysis

Overall, the individual buildings at Fayette are in relatively sound condition. There are a few rotten boards at several of the buildings, especially those that are not open to the public, and the dolomite foundations at each of the buildings are in need of tuckpointing and, in some cases, realignment. Although no signs of structural deficiency were observed at any of the structures open to the public, those that are not currently open will require further structural analysis prior to public visitation. Due to the excessive accumulation of moisture at several of these buildings, hidden rot and other factors that threaten the structural integrity may be present although not readily apparent.

It is assumed that since extensive restoration treatment has already been implemented at both the Town Hall (Building #101) and the Company Office (Building #108), that these buildings have already undergone structural inspection and alteration to meet the needs of their current use. At the same time, based on the existing framing at the Company Office (Building #108), the second floor is not sufficient to maintain the capacity that public visitation would create. The span of the second floor joists would need to be reduced which would require additional structural support which would not only be visibly obtrusive at the first floor, would also require the destruction of a significant amount of recently restored and recreated interior fabric. Due to these factors, it is not recommended that the second floor of the Company Office (Building #108) be open to the public.

A preliminary analysis was undertaken to determine potential load capacities at several of the townsite's buildings. The analysis is included in Appendix A of this report. The structural analysis was undertaken with the following assumptions:

- That all loads paths are aligned between floors.
- That all stairs are supported and headered properly.
- That all roof loads are carried to exterior walls.
- That all first floor joists bear fully on the masonry foundation walls.
- That no joists are notch bearing or mortise and tenon
- That that are no extensive through-splits or wood rot in the members analyzed.

Based on these assumptions, the following capacities were determined:

Superintendent's House (Building #1)

- First floor: 72 psf

This is slightly less than the required 100 psf for public spaces, therefore, additional shoring should be added in the basement (crawl space).

- Second floor: 47 psf

This is quite lower than the required 100 psf, therefore, public access should be limited or restricted at the second floor.

Doctor's House (Building #2)

- First floor: on grade, sufficient
- Second floor public space: 105 psf

This is sufficient for public use.

- Second floor: 63 psf

This lower capacity than required is only at those spaces of the floor that contain exhibits and are therefore not exposed to live load (people). This restriction should be maintained.

Supervisor's Residence (Building #4)

- First floor: 113 psf

This is sufficient for public use.

- Second floor: 51 psf

This is quite lower than the required 100 psf, therefore, public access should be limited or restricted at the second floor.

Supervisor's Residence (Building #7)

- First floor: 95 psf

This is slightly less than the required 100 psf for public spaces, therefore, additional shoring should be added in the basement (crawl space).

- Second floor: 52 psf

This is quite lower than the required 100 psf, therefore, public access should be limited or restricted at the second floor.

Supervisor's Residence (Building #9)

- First floor: 77 psf

This is slightly less than the required 100 psf for public spaces, therefore, additional shoring should be added in the basement (crawl space).

- Second floor: 39 psf

This is quite lower than the required 100 psf, therefore, public access should be limited or restricted at the second floor.

Supervisor's Residence (Building #18)

- First floor: 108 psf

This is sufficient for public use.

• Second floor: 16 psf
This is substantially lower than the required 100 psf, therefore, public access should be **restricted** at the second floor.

Supervisors' Residences (Buildings #26 and 27)
• First floor: 142 psf
This is sufficient for public use.
• Second floor: 38 psf
This is substantially lower than the required 100 psf, therefore, public access should be **restricted** at the second floor.

Supervisors' Residence (Building #30/31)
• First floor: 81 psf
This is slightly less than the required 100 psf for public spaces, therefore, additional shoring should be added in the basement (crawl space).
• Second floor: 51 psf
This is quite lower than the required 100 psf, therefore, public access should be limited or restricted at the second floor.

For those structures that are inadequate, additional framing to handle a higher load capacity is easily achievable at the first floors of all of the structures, which, at a minimum, have a crawl space (although most have basements) where additional shoring could be inconspicuously placed. In most cases, it is recommended that access to second floor spaces that have low load capacities be limited or restricted rather than providing additional structural support. This is because the introduction of new structural framing will be visually obtrusive in most cases at the first floor, and its installation will destroy some historic fabric.

Closer inspection of the structural capacities of all of the townsite's buildings should be undertaken as part of the Historic Structure Report at each of the townsite's individual buildings. Minor destructive investigation should also be undertaken to reveal concealed areas of rot in some of the roof boards and joists.

Cyclical Maintenance Program

It is recommended that all detrimental vegetation be "scrubbed" adjacent to all extant buildings, especially those buildings that are not open to the public. This will help to mitigate continued mildew growth on the wood surfaces and moss on the roofs. Most of this growth is thought to have been the result of a lack of sunlight or ventilation due to the overgrown vegetation, especially on the north sides of the houses along the back street (Buildings #18, 25, 26, 27, and 30/31). This treatment is important, especially as more and more historic fabric is restored and refinished. The "scrubbing" should maintain vegetation at a minimum distance of 10 - 15 feet from each building. It is also recommended that vegetation scrubbing from the extant foundations ruins be continued on a yearly basis.

Scrubbing should begin at the opening of each season, and at least half of all necessary removal should be undertaken. Therefore, all vegetation will receive complete scrubbing on a two year cycle.

Repairs for clapboard replacement should correspond with the painting maintenance cycle. Each building should be inspected on a yearly basis to determine if there is any damaged or deteriorated paint finish, wood clapboard siding, exterior wood trim, or other areas of damage. Following analysis at the beginning of each

season, those area of paint failure should be prepared and repainted. If the problem becomes cyclical, the cause of paint failure is likely due to another, underlying, problem. Further analysis should be undertaken to determine the cause prior to repainting. All deteriorated or damaged clapboard should be repaired or replaced, according to the guidelines established in treatment W-1 through W-6 of this report, as soon as possible following the time that they are observed.

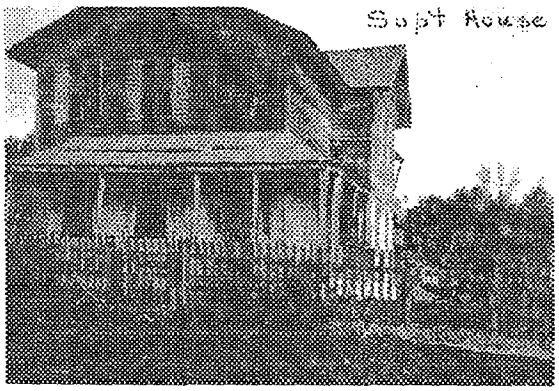
Monitoring of significant changes at the townsite should be undertaken. Periodic photographs documenting the townsite could provide a record of its conditions and later study may help understand problems, etc.

[1] *Fayette Townsite Museum Program Recommendations (1990 - 1999).* Working document. Prepared by the Michigan Department of State and the Michigan Department of Natural Resources. (Lansing, MI: 1989), 3.

Existing Conditions Photographs

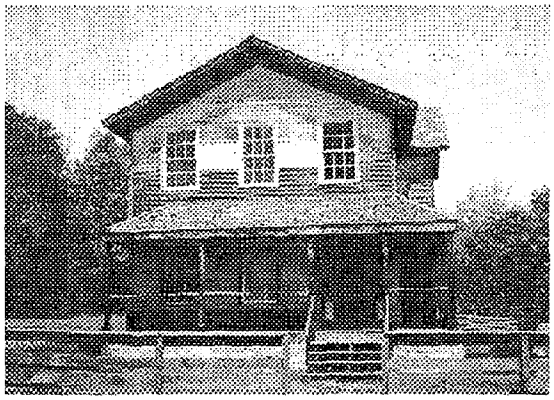
Superintendent's House (Building #1)

Figure 17



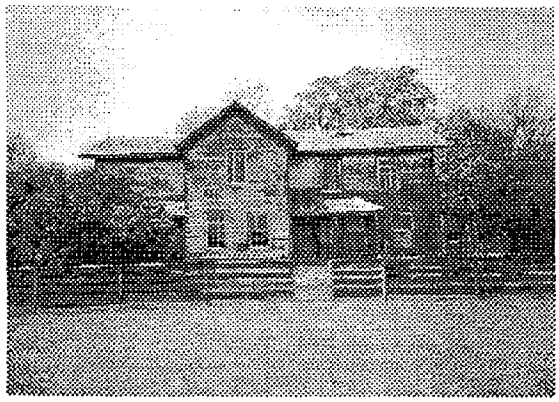
View of the south elevation ca. 1907. Note the curved profile metal roof, shutters at the second floor windows, and picket fence.

Figure 18



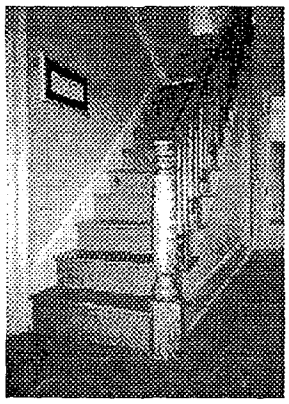
View of the east elevation in 1996. Note the reconstructed rail fence, there are no shutters on the house, the wood shingled porch roof, and the metal handrail between the porch columns.

Figure 19



View of the east elevation in 1996. Note the reconstructed wood fence, the reconstruction porch roofs, and the original board and batten siding at the one-story kitchen wing.

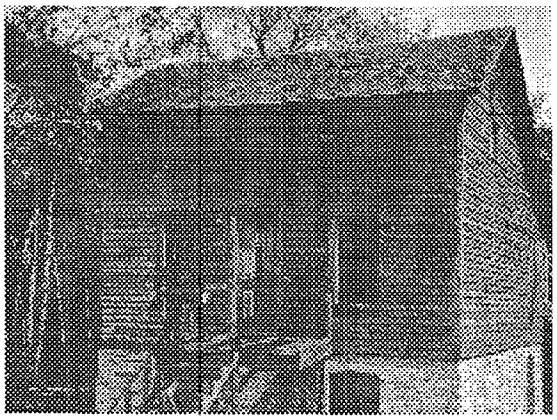
Figure 20



View of the stair to the second floor in 1996. This photograph shows typical level of trim and finishes found throughout the house.

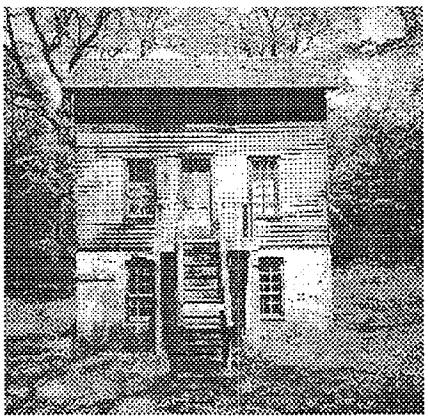
Doctor's House (Building #2)

Figure 21



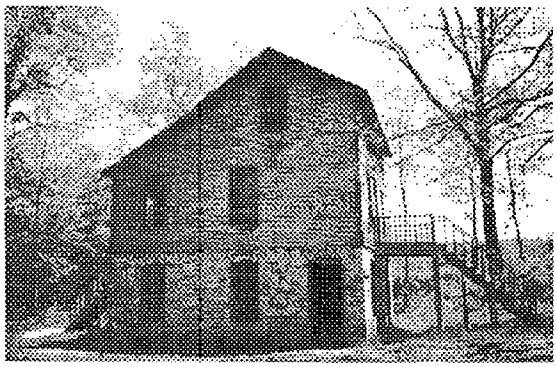
View of the south elevation in 1907. Note the exterior stair has extensively deteriorated.

Figure 22



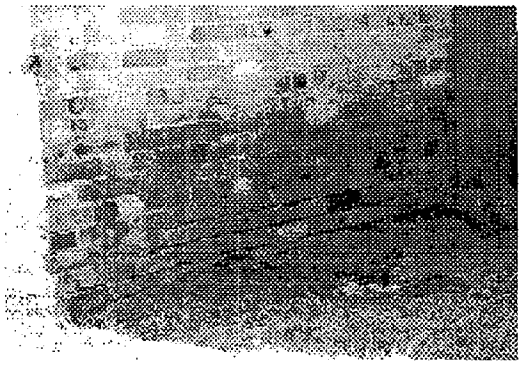
View of the south elevation in 1996. Note the exterior stair has been reconstructed (this is at least the second reconstruction). Also note that overgrown vegetation has been cleared away from the building.

Figure 23



View of the west elevation, 1996. Note the nine-over-six double-hung wood sash windows.

Figure 24



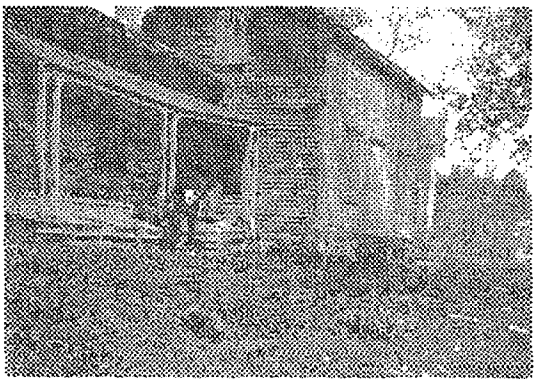
Detail view of the deteriorated (missing) mortar joints at the north elevation, 1996..

Figure 25

View of the furnished "period room" at the second floor, 1996.

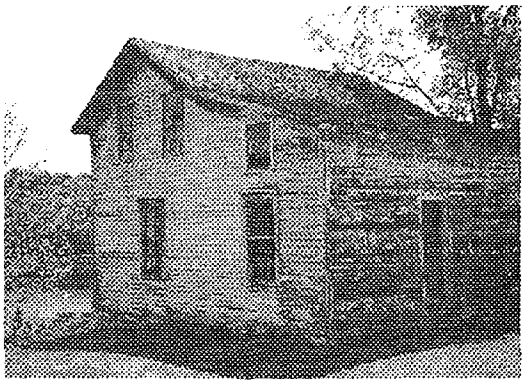
Supervisor's Residence (Building #3)

Figure 26



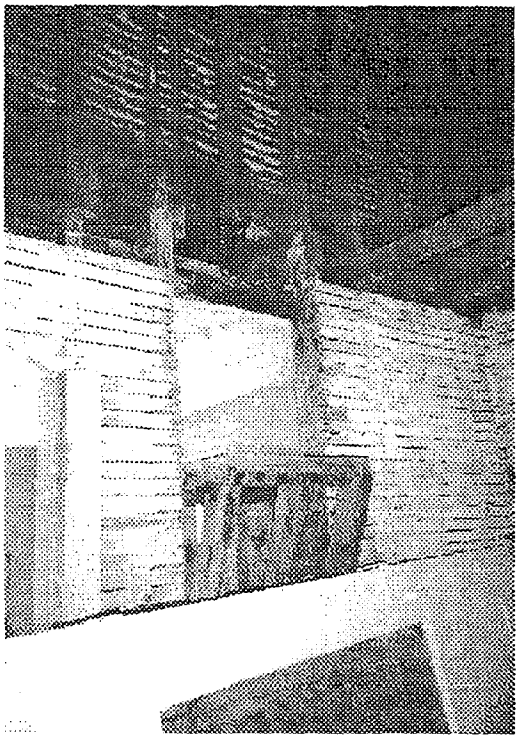
View of the east elevation in 1907. Note the one-story addition at the south with porch extending its entire length. (This addition and porch have since disappeared.)

Figure 27



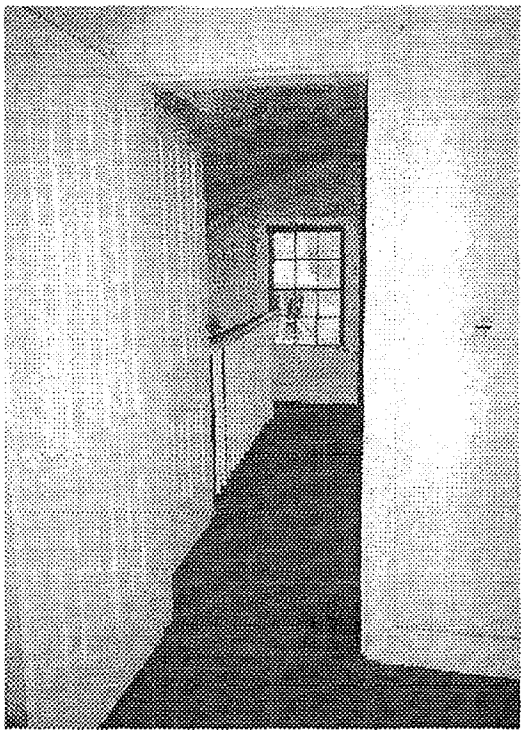
View of the north and west elevations, 1996.

Figure 28



Detail view of the wood framing that previously supported the former chimney, 1996. Note that the entire ceiling / floor structure above is missing.

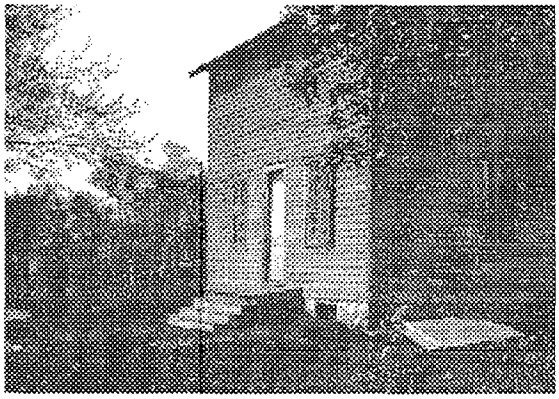
Figure 29



View of the second floor interior, 1996. Note that overall the materials and finishes are in better condition at the second floor.

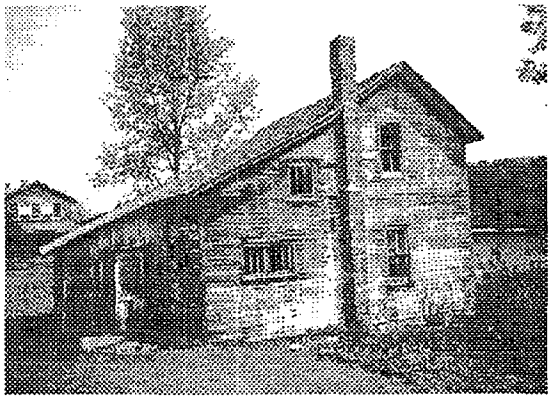
Supervisor's Residence (Building #4)

Figure 30



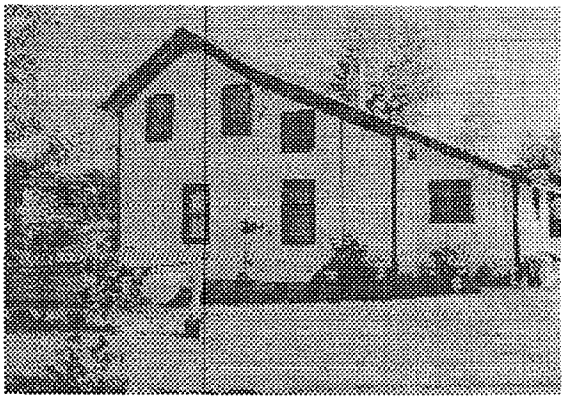
View of the east and north elevations, 1907. Note that there shutters on the windows and a porch and steps at the front entrance.

Figure 31



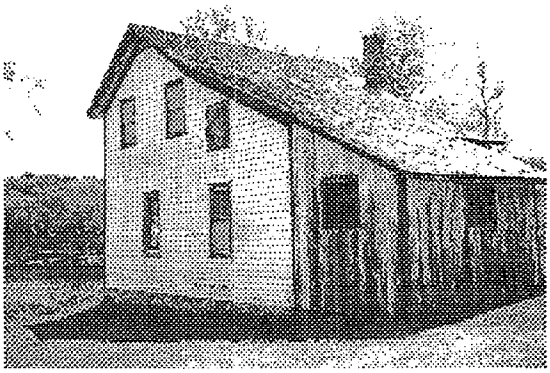
View of the south elevation, 1996. Note the chimney and air vents that were added in 1960 when the house was remodeled for use as the park manager's residence.

Figure 32



View of the north elevation, ca. 1960s. Note the paint scheme with dark trim elements; this was when the house was used as the park manager's residence. Also visible are the vents, one located near the top of the gable and one at the shed-roof addition.

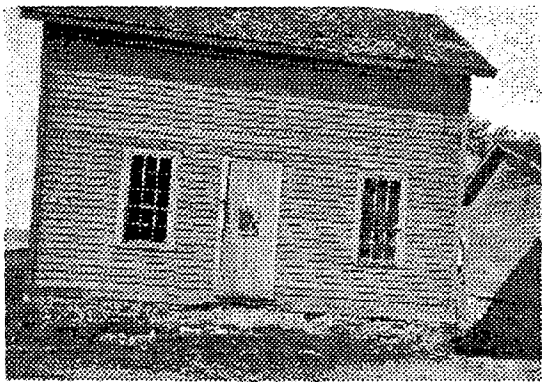
Figure 33



View of the north elevation, 1996. This is one of the only structures that has an extensive amount of paint left on it. Note that it appears that the lean-to kitchen addition was painted a darker color.

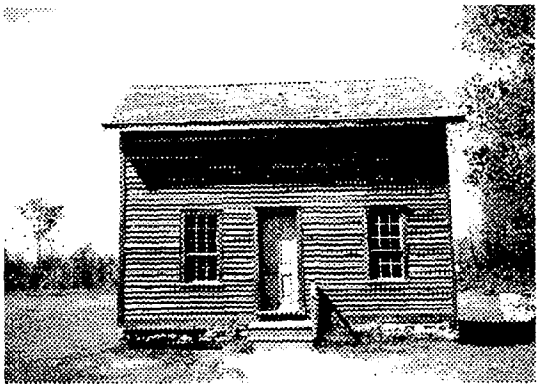
Supervisor's Residence (Building #7)

Figure 34



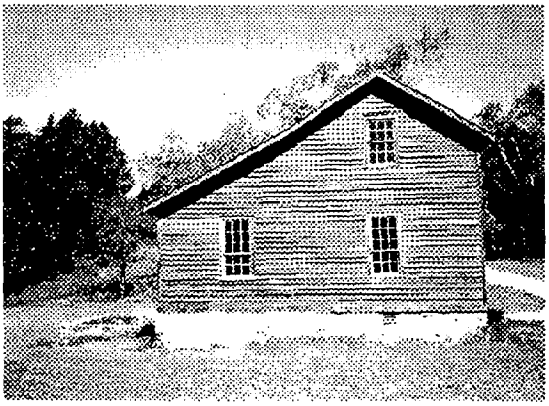
View of the north elevation in 1907. Note that the porch is missing and the foundation has deteriorated. Note the (presumed non-historic) plank door.

Figure 35



View of north elevation, 1996. Note that the porch has been reconstructed, and the door has been replaced with a four-panel door.

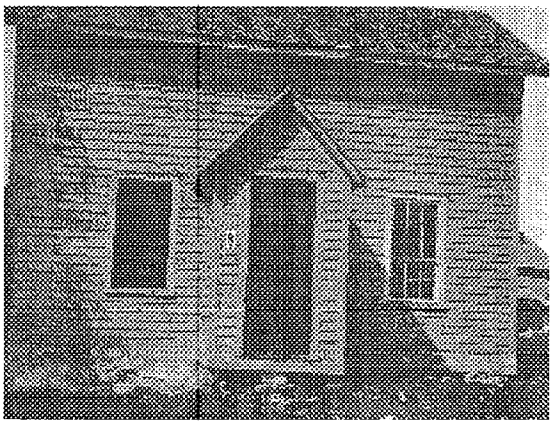
Figure 36



View of the east elevation, 1996. Note the foundation from the former kitchen addition at the south end. Was the vent in the foundation wall added by park?

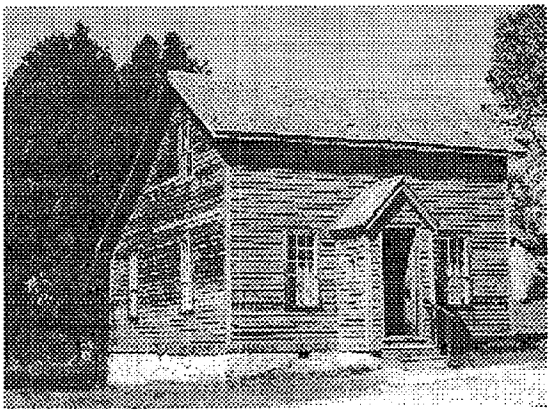
Supervisor's Residence (Building #9)

Figure 37



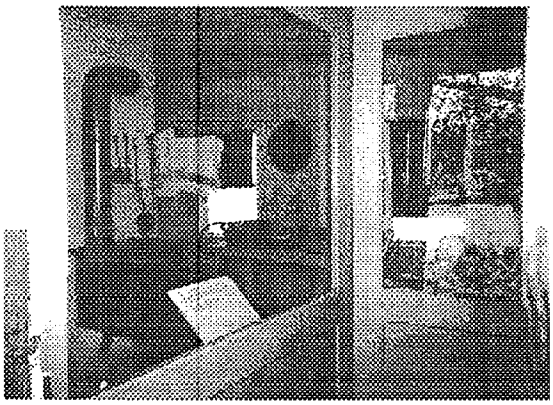
View of the north elevation, ca. 1907. Note that most of the paint has worn of the exterior of the building, the porch steps have deteriorated and are missing, and the window sash is missing from one of the windows.

Figure 38



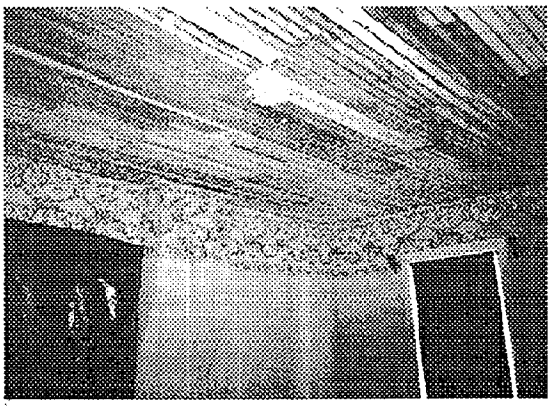
View of the north and east elevations, 1996. Note the reconstructed porch vestibule (it is very similar to the original in Figure 21). Note the conspicuous areas of clapboard replacement.

Figure 39



View of the interior looking from the rear public entrance, 1996. A wood and plexiglass partition has been constructed to create a viewing vestibule just inside the door.

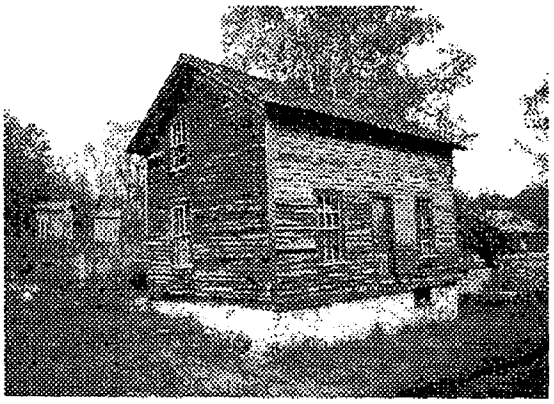
Figure 40



View of the ceiling of the dining room, 1996. This room was in the process of treatment when the photograph was taken. Note that areas of deteriorated lath have been replaced at the ceiling prior to the installation of new plaster.

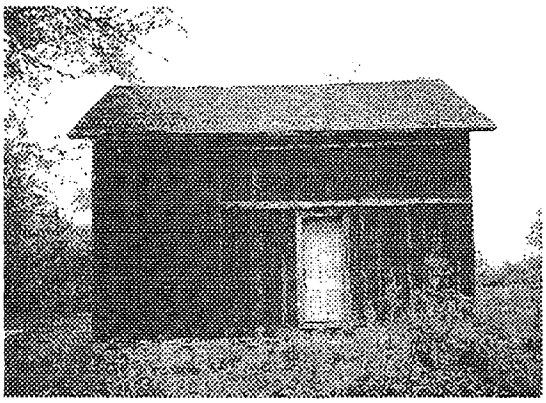
Supervisor's Residence (Building #18)

Figure 41



View of the north and west elevations. Note the several areas of deteriorated clapboard and the missing front steps. Also note the contemporary pit toilets located in the left background.

Figure 42



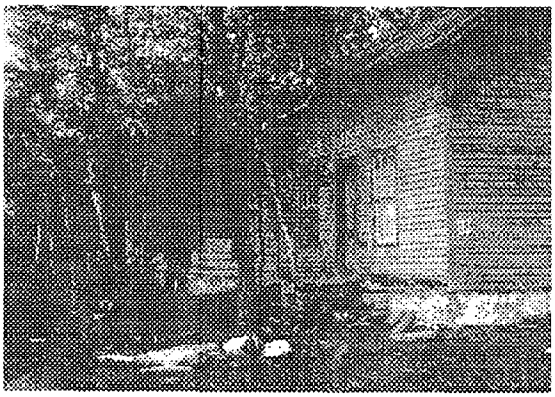
View of the east elevation, still faced in the original board and batten siding. Note the nailing boards that the rafters and ceiling joists of the former one-story addition were attached to.

Figure 43

View of the three-part privy located northwest of Building #18. This privy is presumably original to the site and served a few of the Supervisor's Residences.

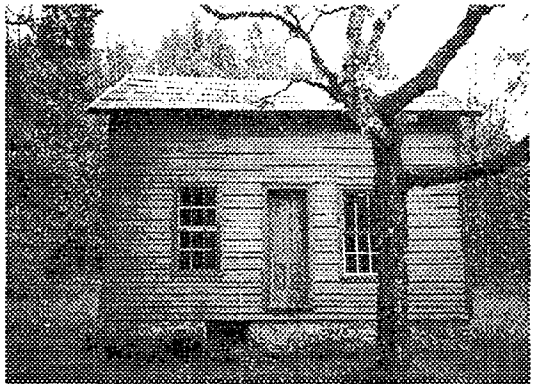
Supervisor's Residence (Building #25)

Figure 44



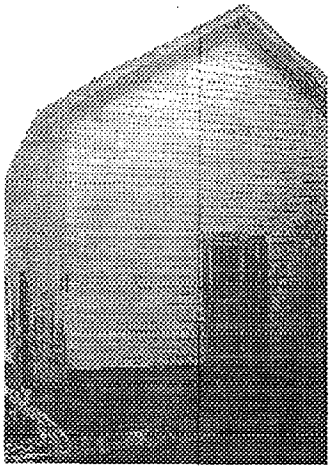
View of the west elevation, ca. 1907. Note the deteriorated front porch.

Figure 45



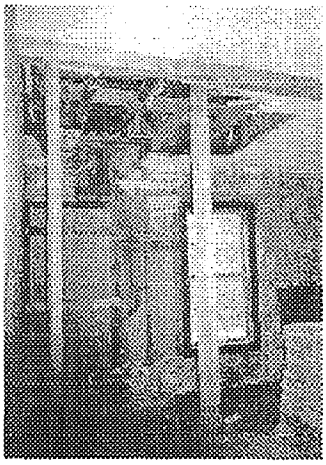
View of the west elevation, ca. 1907. Note that the roof is only covered with felt roofing held down with batten boards.

Figure 46



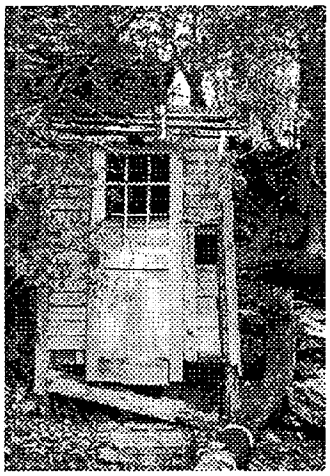
View of the north elevation, ca. 1960s. This photograph was taken during the sill replacement. Note that the clapboard siding has been removed from the east elevation.

Figure 47



View of the interior looking west, 1996. Note the broken ceiling joists and temporary shoring.

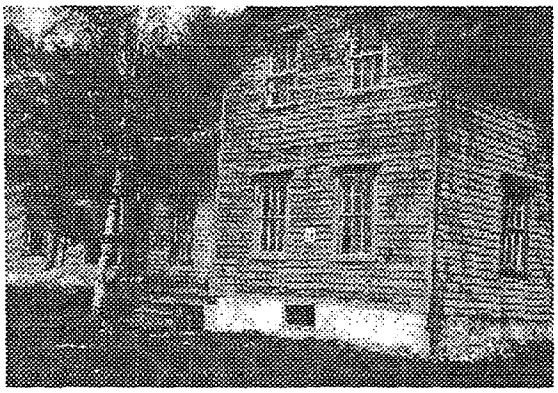
Figure 48



View of the privy located in the hillside behind (east of) Building #25.

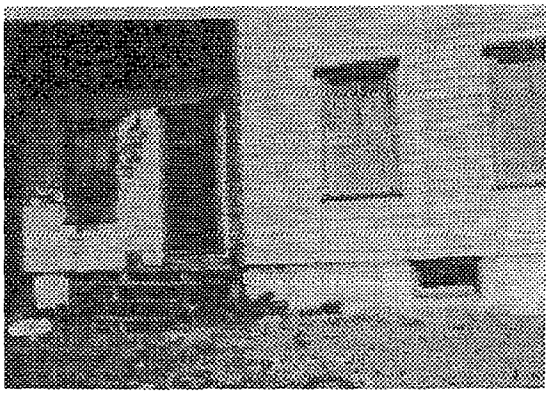
Supervisor's Residence (Building #26)

Figure 49



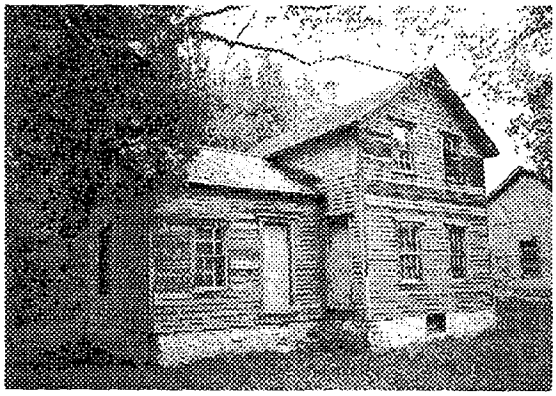
View of the west and south elevations, ca. 1907. Note the porch leading to the two front entrances.

Figure 50



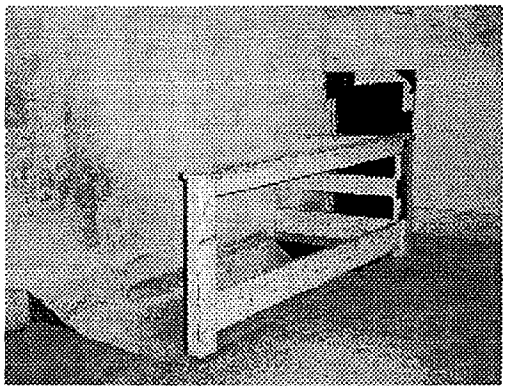
View of the west elevation, ca. 1920s. Note the paint scheme that consists of a light field and dark trim (window frames, corner boards, etc.) Note the front porch with open riser stairs.

Figure 51



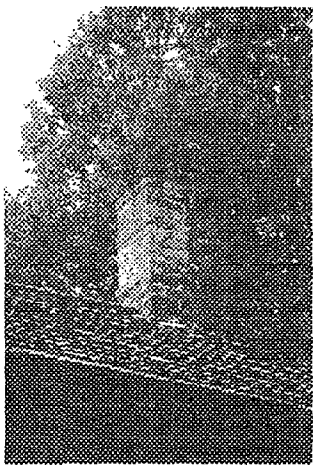
View of the west elevation, 1996. Note that the porch is has deteriorated and is completely gone. Also note the areas of clapboard replacement evidenced through a contrast in color.

Figure 52



View of the stair at the second floor, 1996.

Figure 53



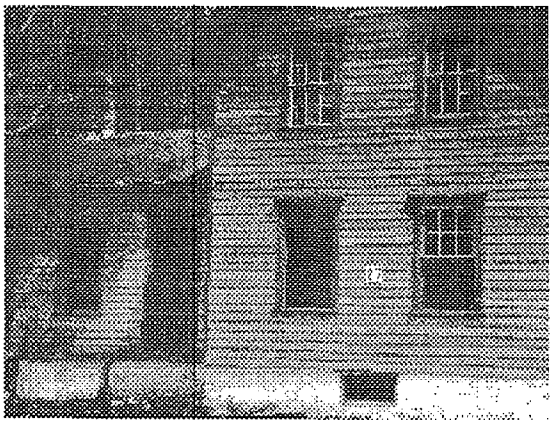
View of the chimney, 1996. Note the two types of bricks indicating that it may have been reconstructed.

Figure 54

View of one of the second floor windows at the rear (east end) of the building, 1996. Note the wood louver vent installed in the bottom portion of the opening.

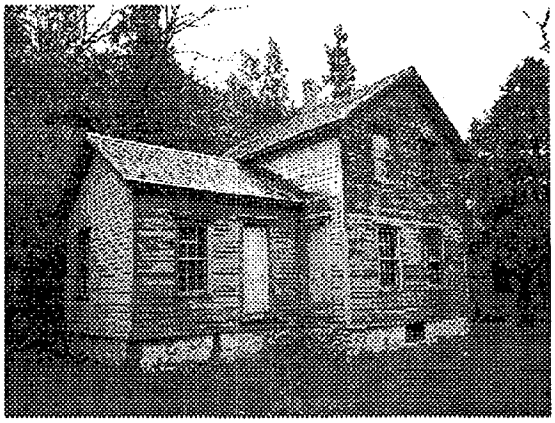
Supervisor's Residence (Building #27)

Figure 55



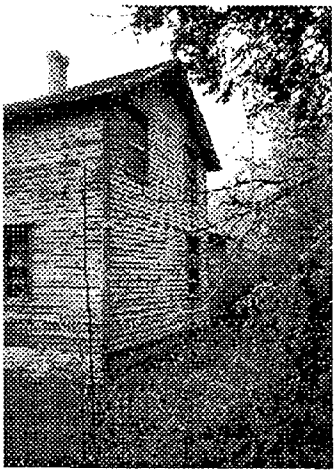
View of the west elevation, ca. 1907. Note that the stair has either deteriorated or was removed. Also note that most of the paint finish has worn off of the building.

Figure 56



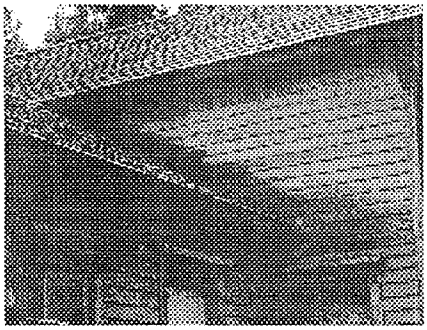
View of west and north elevations, 1996. Note the areas of deteriorated clapboard siding.

Figure 57



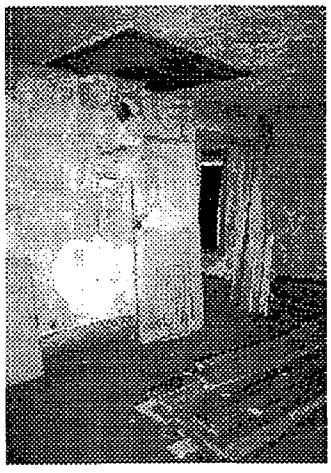
View of the north and east elevations, 1996.

Figure 58



Detail view of the mildew-stained clapboard along the roof connection, 1996. Moisture accumulation has been a problem at several of the structures due to the lack of ventilation, overgrowth of vegetation, and lack of sunlight.

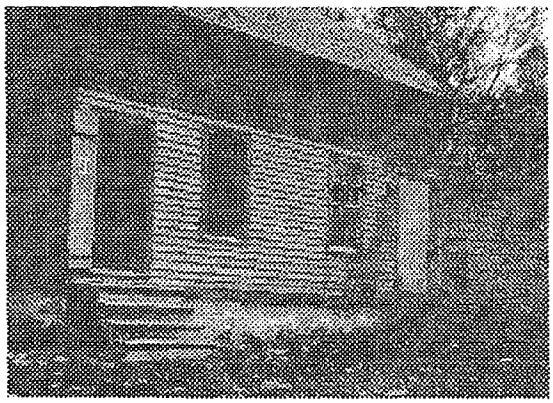
Figure 59



Interior view of the kitchen, 1996. Note the chimney along the north wall, typical chimney configuration in most of the residences.

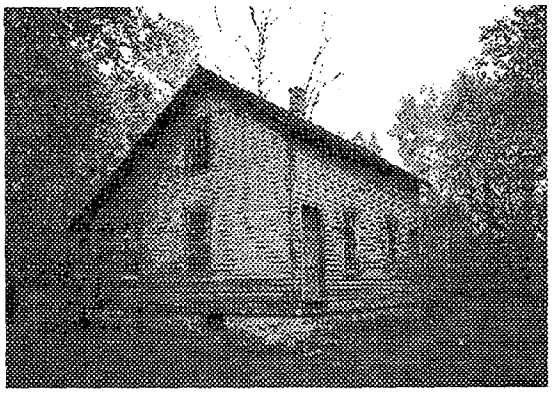
Supervisors' Duplex Residence (Building #30/31)

Figure 60



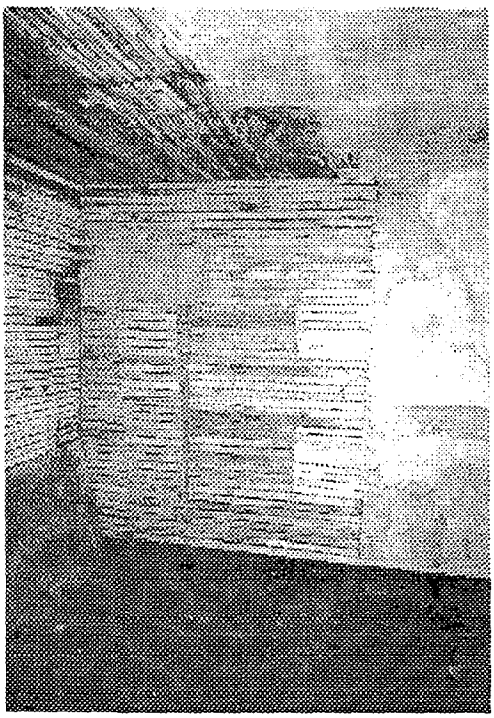
View of the west elevation, ca. 1907. Note the wood steps constructed at each of the entrances. Also note that the doors are vertical boards rather than panel configuration.

Figure 61



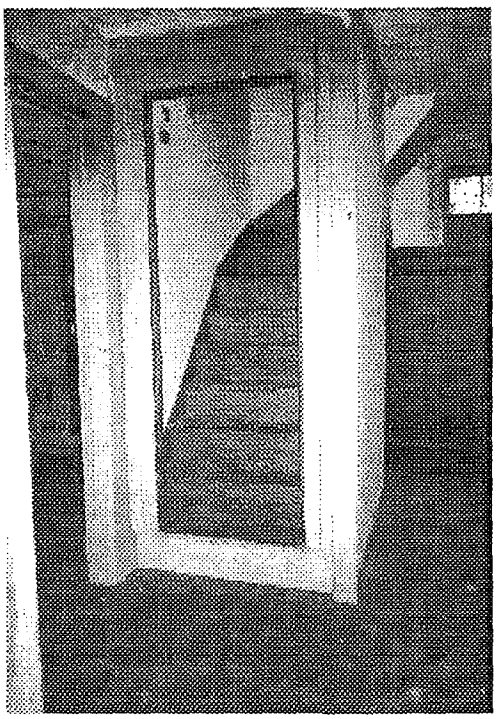
View of the west and north elevations, 1996. Note the areas of deteriorated clapboard siding and that the wood steps at each of the entrances are gone.

Figure 62



View of the interior at the rear of the building, 1996. An extensive amount of repair was undertaken along the entire rear of the house, including: sill and framing replacement as necessary, finish flooring replacement, and lath and plaster replacement.

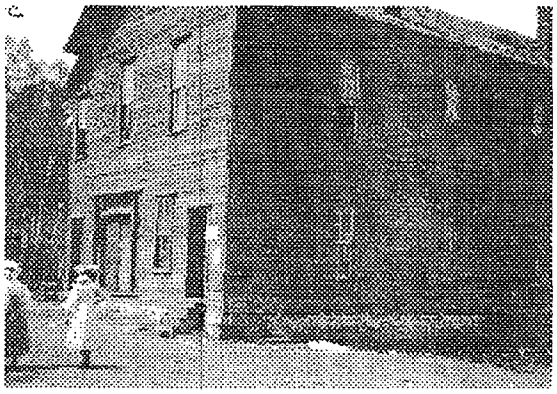
Figure 63



View of one of the interior stairs leading to the second floor, 1996.

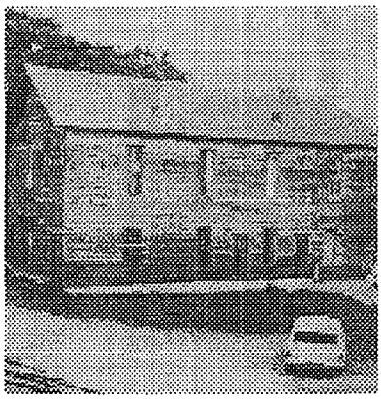
Town Hall (Building #101)

Figure 64



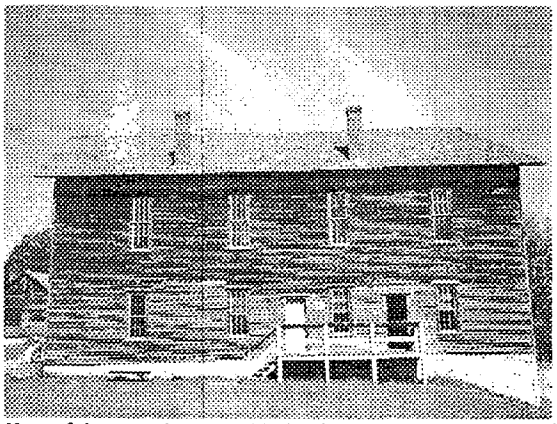
View of the south and east elevations, ca. 1907.

Figure 65



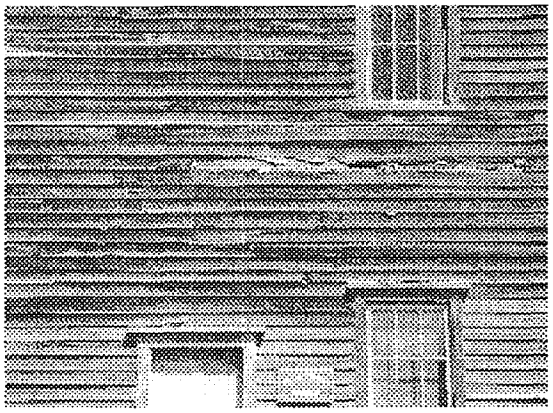
View of the east and south elevations, ca. 1960s. Note that the platform outside of the entrances at the east elevation is gone.

Figure 66



View of the east elevation, 1996. Note the extensive areas of clapboard deterioration and that the platform and steps have been reconstructed at the entrances.

Figure 67

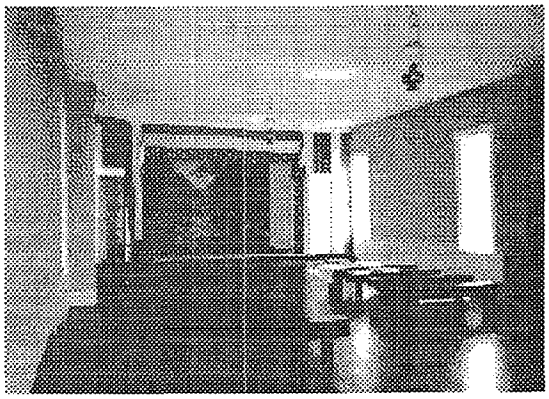


Detail view of deteriorated clapboard at the east elevation, 1996.

Figure 68

Interior view of the second floor auditorium / meeting space, looking toward the stage, ca. 1960s. The space has experienced extensive deterioration and damage.

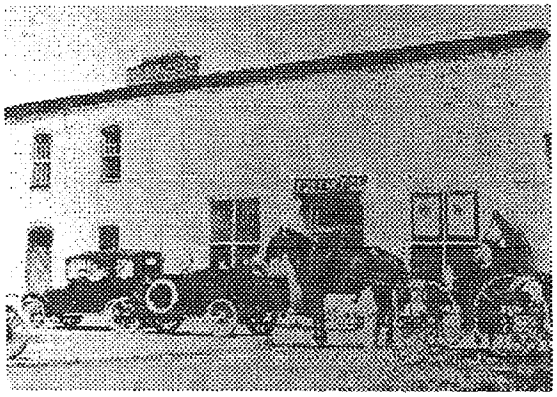
Figure 69



Interior view of the second floor auditorium / meeting space, looking toward the stage, 1996.

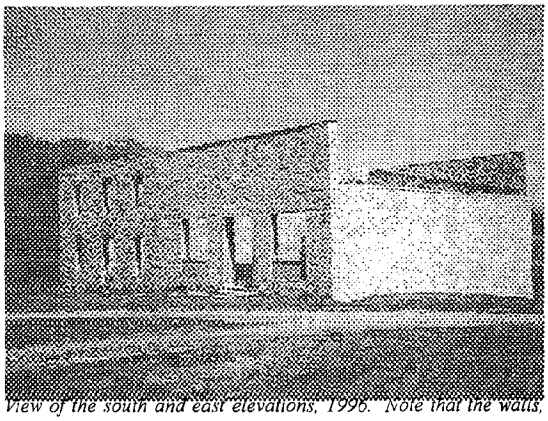
Company Store and Warehouse (Buildings # 102A and 102B)

Figure 70



View of the south elevation, ca. 1907? Still in operation? Prior to the fire that gutted the building and destroyed the roof.

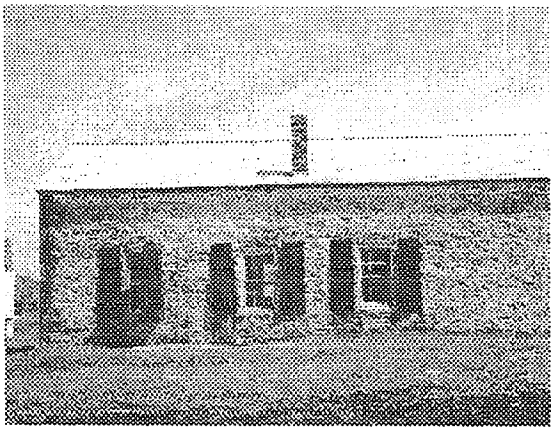
Figure 71



View of the south and east elevations, 1996. Note that the walls, especially near the top and near openings have been stabilzed and capped with limestone.

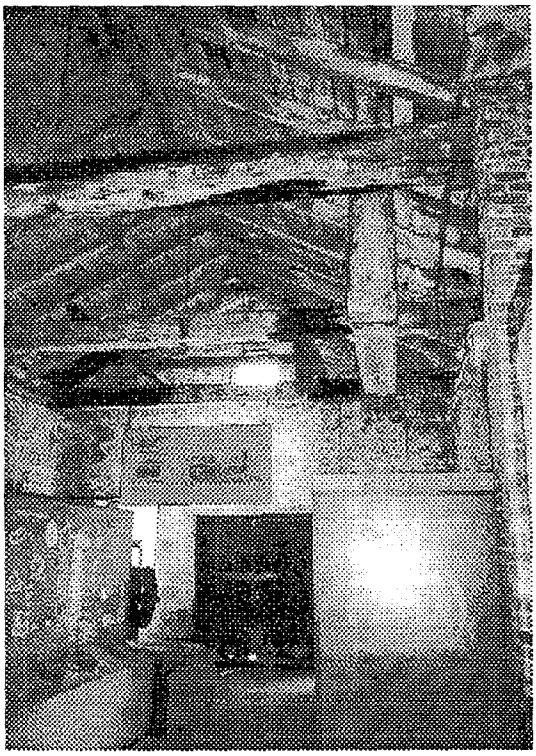
Machine Shop (Machine #104)

Figure 72



View of the south elevation, 1996. Note that the top of the limestone wall (can see lighter mortar color) has been reconstructed and the roof.

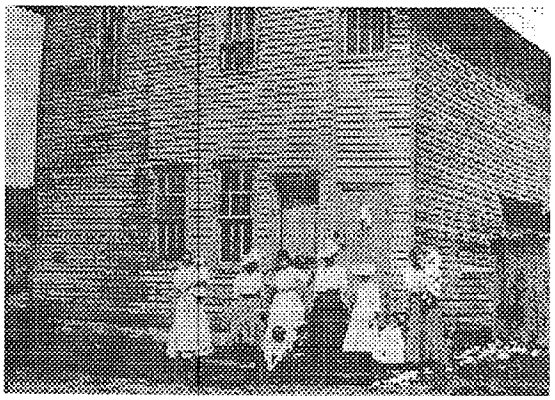
Figure 73



View of the inteiror looking east, 1996. Note that materials have been stabilized and exhibits placed within.

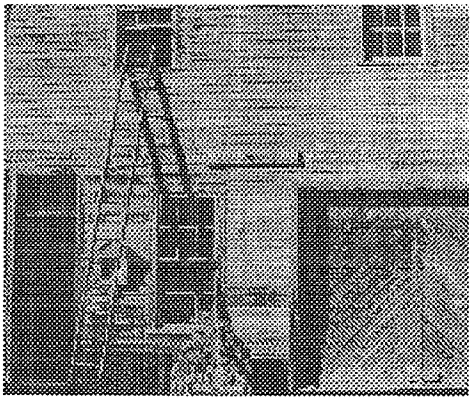
Company Office (Building #108)

Figure 74



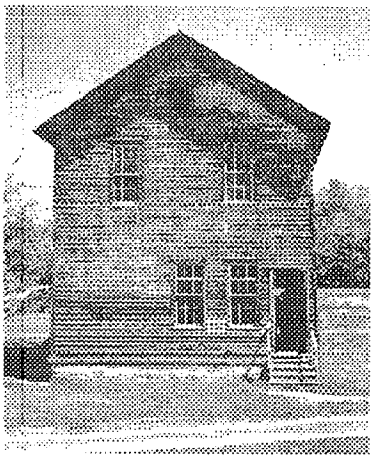
View of the west elevation, ca. 1907. Note the wing at the south side that contained the stair leading to the second floor.

Figure 75



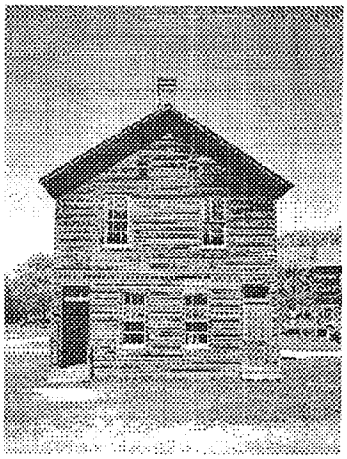
View of the east elevation, ca. 1970. This photogrpah was taken just prior to the rstoration work that removed the large garage-type door from this elevation. The ladder is the only access to the second floor because the stair has been remvoed.

Figure 76



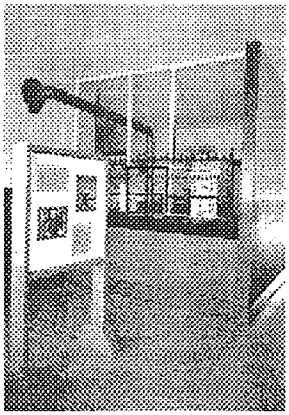
View of the west elevation, 1996. Note that the enclosed stair at the south elevation is gone.

Figure 77



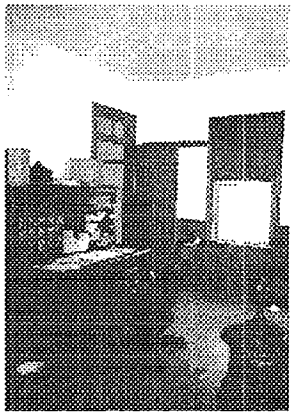
View of the east elevation, 1996. Note that theorignal fenestration pattern has been reconstructed.

Figure 78



View of the interior of the lobby portion of the office, looking from the west entrance, 1996.

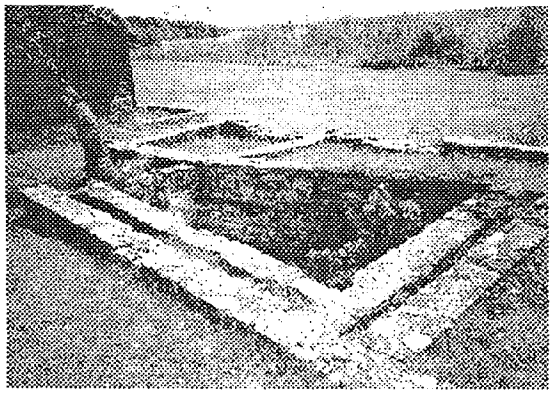
Figure 79



View of the inteiror of the Superintedent's Office, located at the east end of the first floor, 1996.

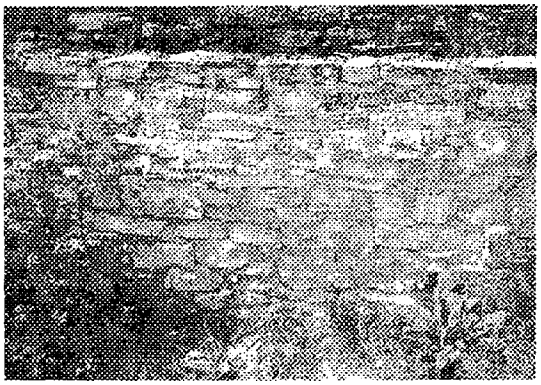
Extant Foundations (Ruins)

Figure 80



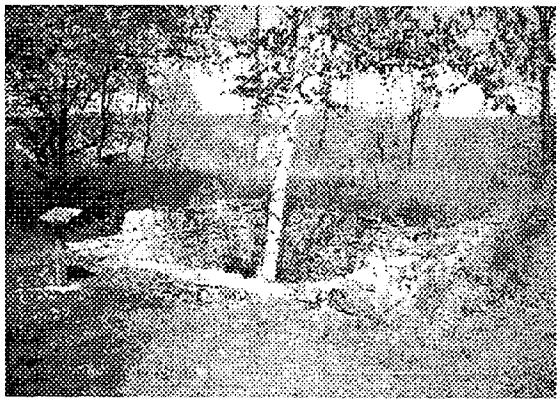
Foundation of a Supervisor's Residence (Building #8).

Figure 81



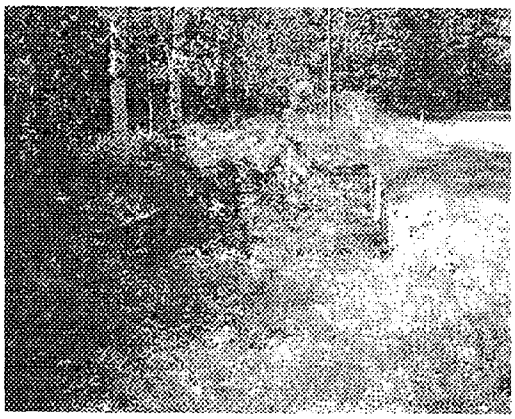
Foundation of a Supervisor's Residence (Building #10)

Figure 82



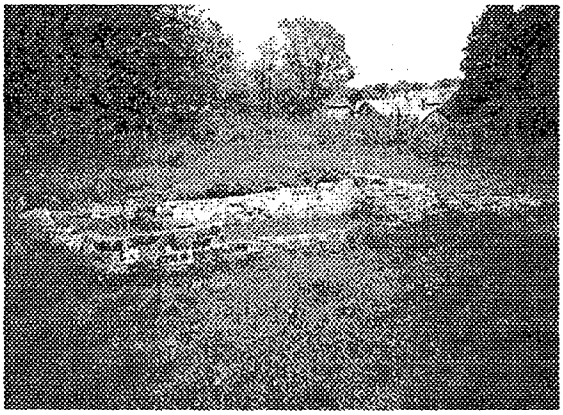
Foundation of the Boarding House (Building #5)

Figure 83



Foundation of a Supervisors' Duplex Residence (Building #11/12)

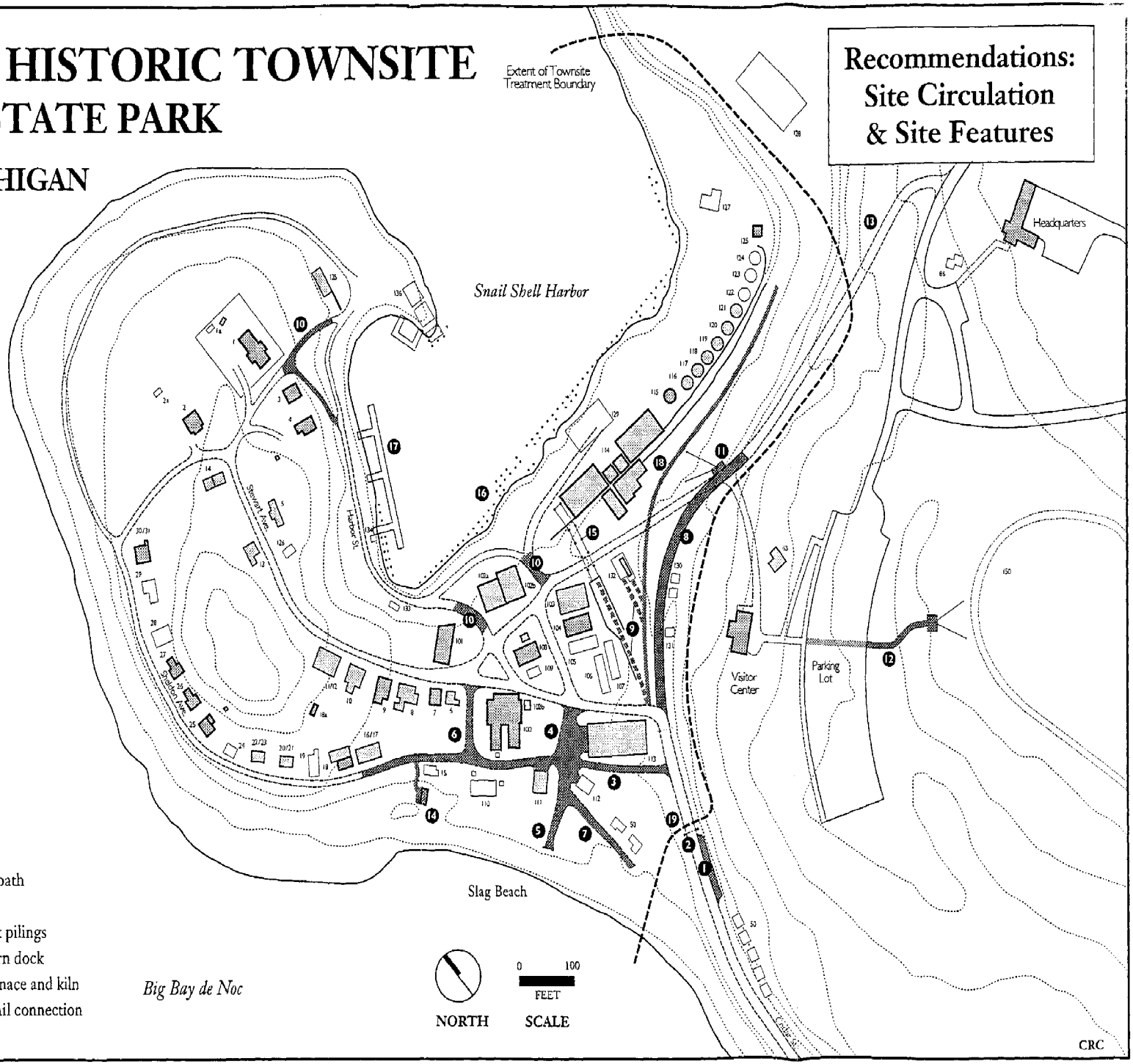
Figure 84



Foundation of a Supervisor's Residence (Building #18)

FAYETTE HISTORIC TOWNSITE
FAYETTE STATE PARK
GARDEN, MICHIGAN

Recommendations: Site Circulation & Site Features



Treatment Recommendations

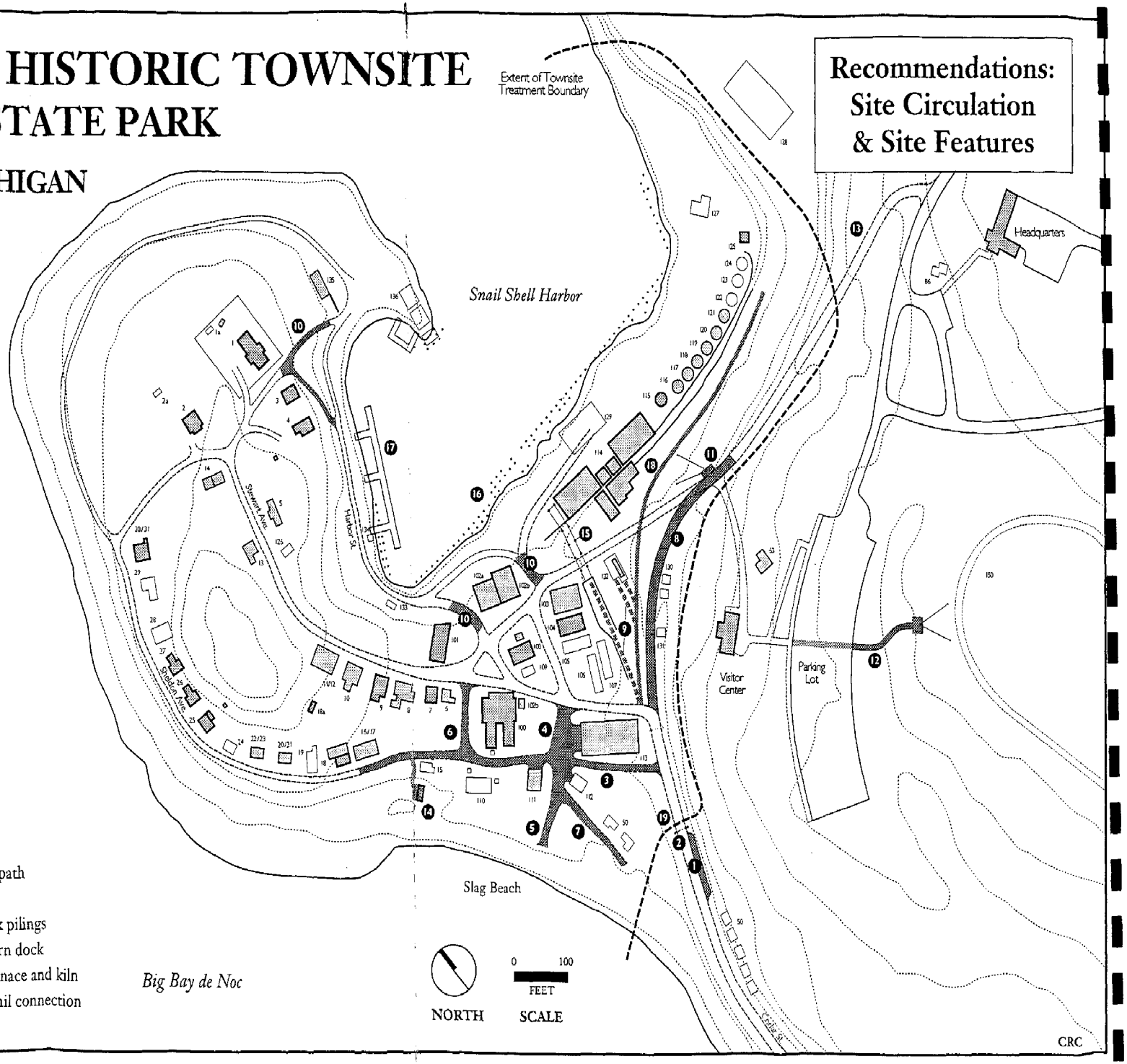
1. Construct new parking area for disabled visitors
2. Relocate gate
3. Reconstruct and accessible ramp
4. Reconstruct road in front of barn
5. Reconstruct path to the slag beach overlook
6. Reconstruct road
7. Reconstruct path to cabin sites
8. Reconstruct section of old county road
9. Mark routes of railroad beds
10. Stabilize pathways
11. New viewing area overlooking townsite
12. New path to viewing area at old ball park and track
13. Improve connection to Overlook Trail
14. Relocate toilets and access path
15. Interpret trestle
16. Preserve and interpret dock pilings
17. Limited amenities at modern dock
18. New path to area above furnace and kiln
19. New marker interpreting rail connection

12.12.96

CRC

FAYETTE HISTORIC TOWNSITE
FAYETTE STATE PARK
GARDEN, MICHIGAN

Recommendations: Site Circulation & Site Features



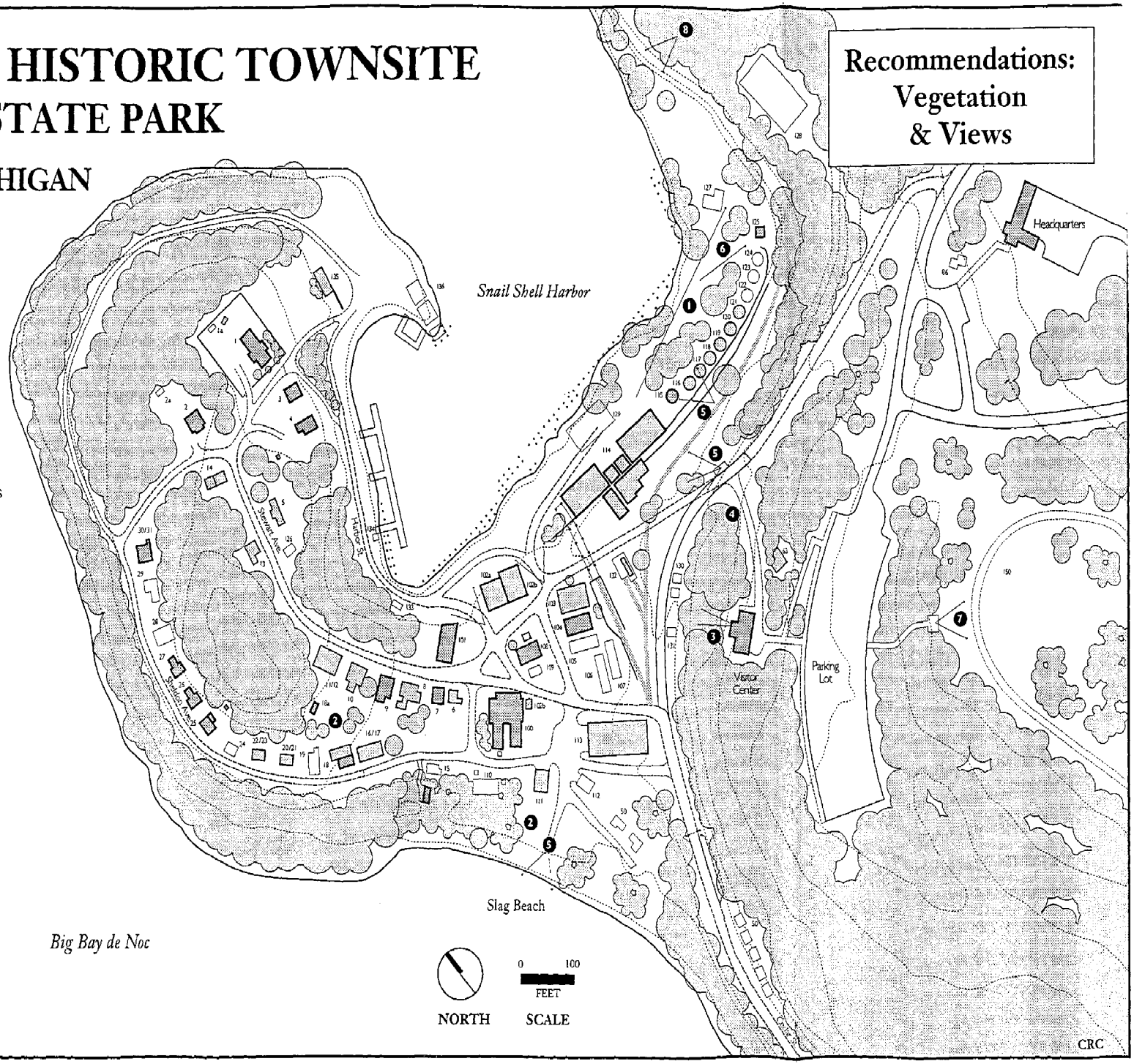
Treatment Recommendations

1. Construct new parking area for disabled visitors
2. Relocate gate
3. Reconstruct and accessible ramp
4. Reconstruct road in front of barn
5. Reconstruct path to the slag beach overlook
6. Reconstruct road
7. Reconstruct path to cabin sites
8. Reconstruct section of old county road
9. Mark routes of railroad beds
10. Stabilize pathways
11. New viewing area overlooking townsite
12. New path to viewing area at old ball park and track
13. Improve connection to Overlook Trail
14. Relocate toilets and access path
15. Interpret trestle
16. Preserve and interpret dock pilings
17. Limited amenities at modern dock
18. New path to area above furnace and kiln
19. New marker interpreting rail connection

12.12.96

FAYETTE HISTORIC TOWNSITE
FAYETTE STATE PARK
GARDEN, MICHIGAN

Recommendations: Vegetation & Views



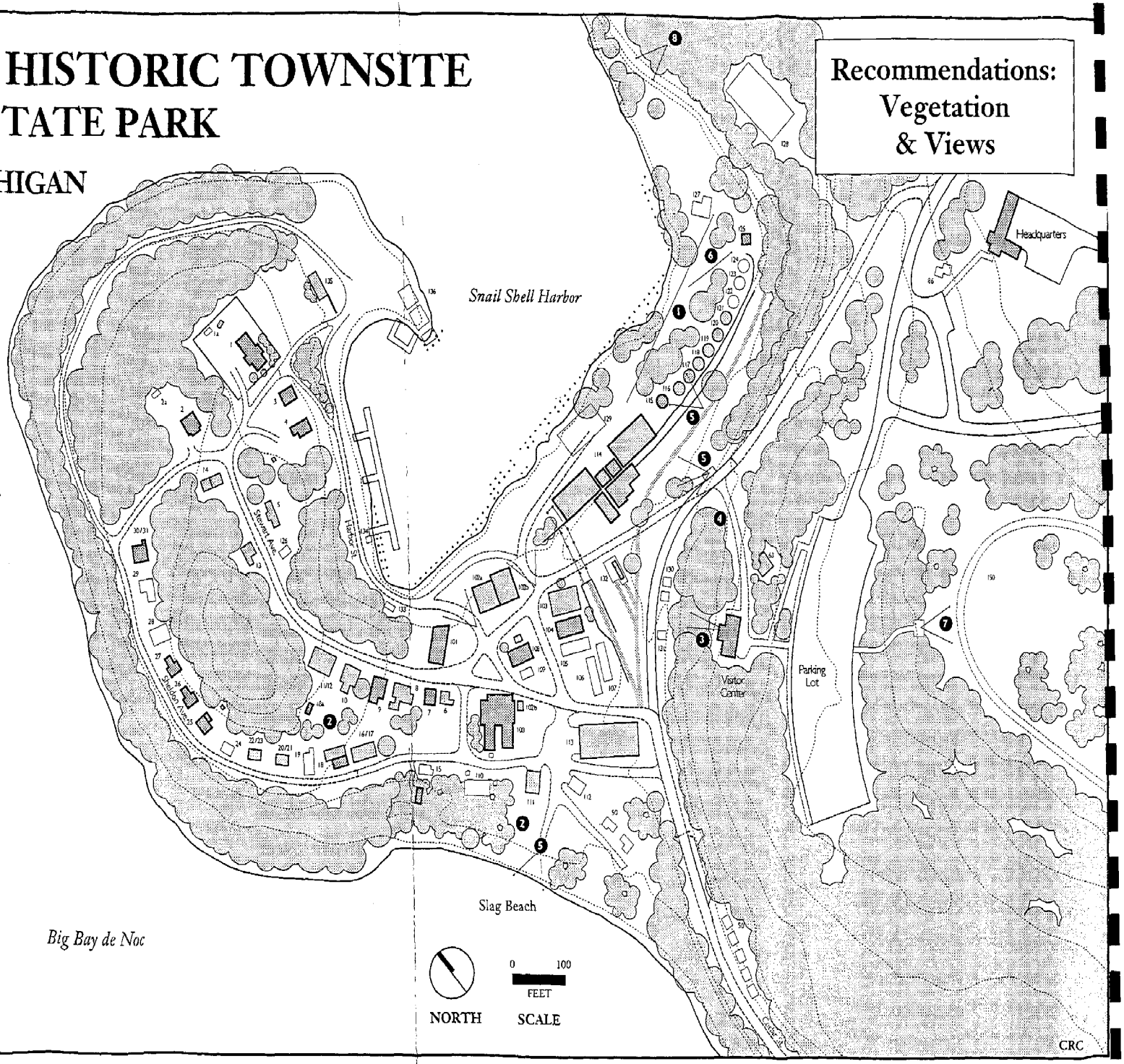
Treatment Recommendations

1. Maintain open understory in front of kilns
2. Maintain shrub community
3. Preserve view from Visitor Center
4. Maintain enclosure along pathway
5. View area
6. Open view to limestone kiln
7. Open views to ball park and track
8. Maintain views from Overlook Trail

12.12.96

FAYETTE HISTORIC TOWNSITE
FAYETTE STATE PARK
GARDEN, MICHIGAN

Recommendations: Vegetation & Views

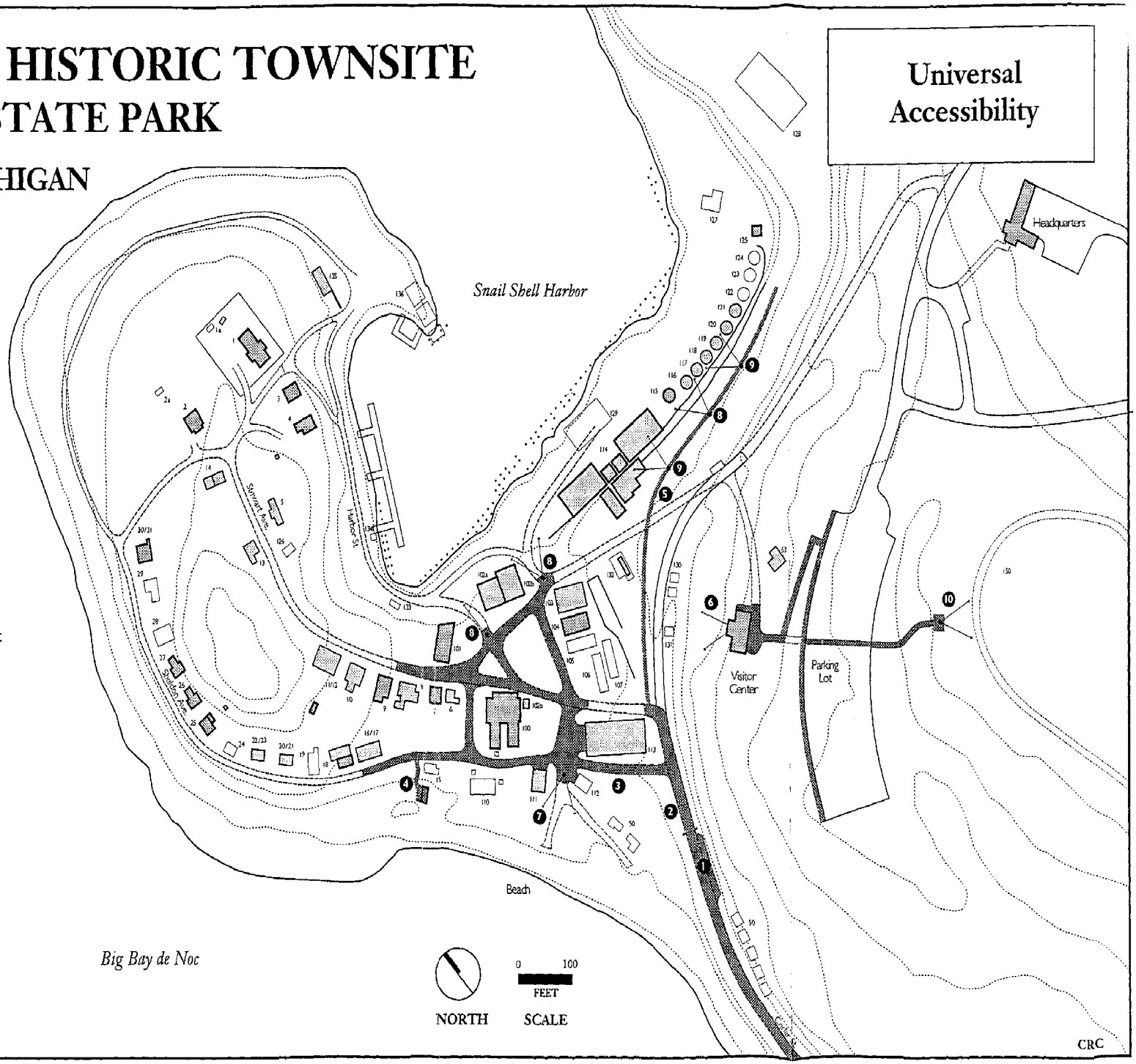


Treatment Recommendations

1. Maintain open understory in front of kilns
2. Maintain shrub community
3. Preserve view from Visitor Center
4. Maintain enclosure along pathway
5. View area
6. Open view to limestone kiln
7. Open views to ball park and track
8. Maintain views from Overlook Trail

12.12.96

FAYETTE HISTORIC TOWNSITE
FAYETTE STATE PARK
GARDEN, MICHIGAN



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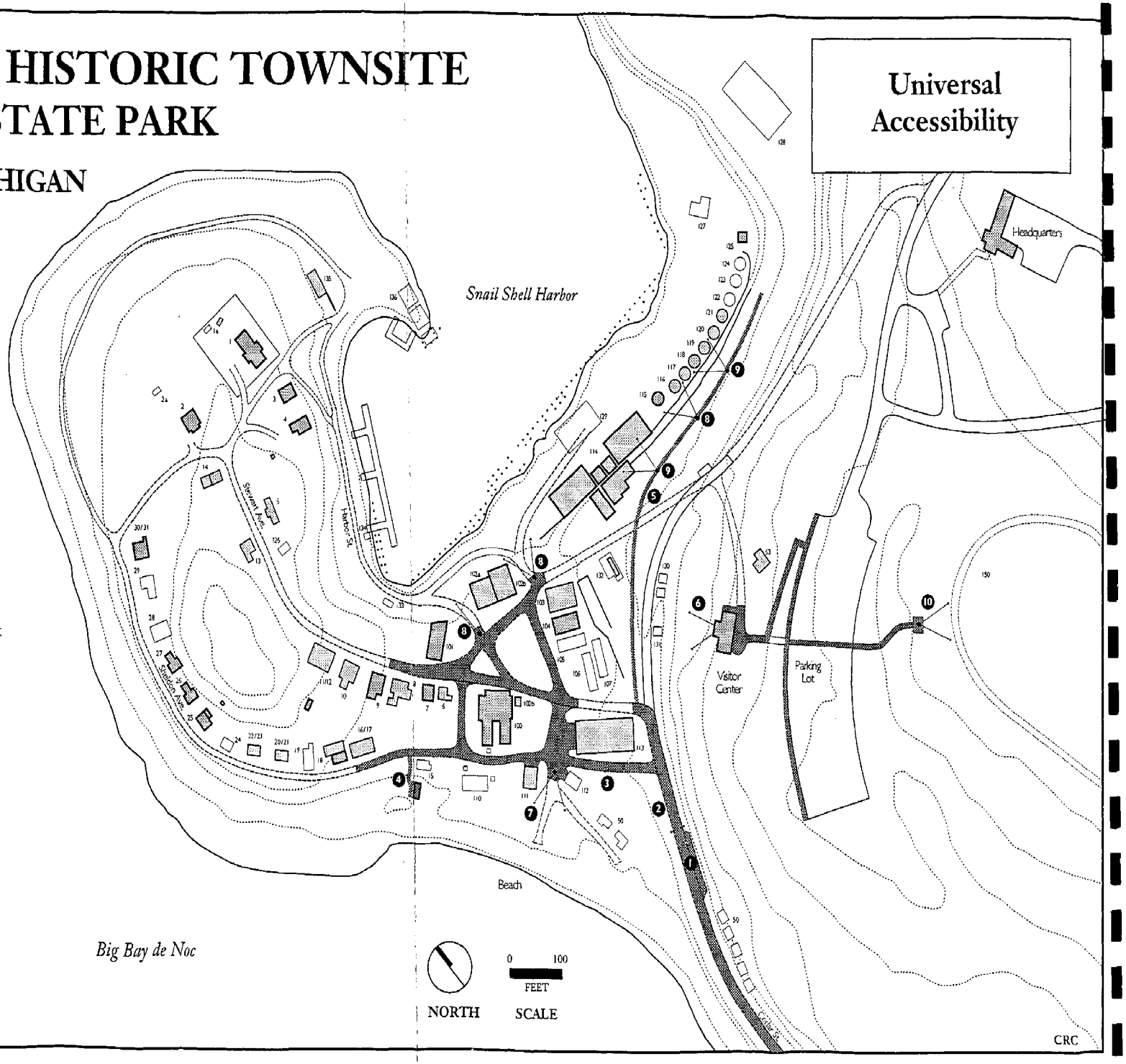
FAYETTE HISTORIC TOWNSITE
FAYETTE STATE PARK
GARDEN, MICHIGAN



1. Parking area for disabled visitors
2. Access to Townsite
3. Accessible ramp
4. Access to toilets
5. Access to area above furnace and kilns
6. View to Townsite
7. View to slag beach
8. View to harbor
9. View to furnace and kilns
10. View to ball park and track

Universally Accessible Pedestrian Routes

12.12.96

Part F:
Archeological Research

Part F: Archaeological Research at Fayette

PREVIOUS RESEARCH

Fayette and the surrounding Garden Peninsula have seen extensive archaeological investigation over the past four decades. Starting with early work by staff and students of the University of Michigan's Museum of Anthropology in the 1960s, extensive survey and excavation projects have revealed a great deal about the prehistory and history of the region.

The results of the Museum's projects in the region are found in published form in monograph series published by the Museum. Of particular interest is the volume edited by Fitting, containing contributions by several graduate students (Fitting 1968). This volume describes several prehistoric sites in the vicinity of Fayette, the Port Bar Site and the Spider Cave Site chief among them. This period of survey and excavation established the archaeological potential of the Garden Peninsula for evidence of prehistoric occupations.

In the mid-1970s, Western Michigan University conducted an excavation at the Winter Site, north of Fayette on Big Bay de Noc. Little has been published on this work, but it clearly represents a major prehistoric occupation (Richner 1973).

The year 1975 saw the first archaeological work focused on Fayette itself, when the Michigan History Division contracted with Lyle Stone of Archaeological Research Services to evaluate the site. Stone performed a survey and test excavation project, working with surface indications and site maps to characterize the townsite. While the work was brief in duration and superficial in terms of areal excavation, it was very revealing (Stone 1975). Stone was able to demonstrate that different areas of the site, from the industrial complex to the various housing neighborhoods, all exhibited significant archaeological records. His test excavations recovered numerous artifacts from the primary occupation period (1867-1891) and also reflected some of the internal divisions within the site, both functional and social.

Stone's landmark study, while necessarily limited in scope, set the tone for subsequent archaeological work at Fayette. His recommendations included a call for continued research, both to answer interpretive questions and to provide an ongoing "archaeology in progress" program in support of public education. He advocated an assessment of underwater resources, as well as a survey that reached beyond the bounds of the park to surrounding areas of the Garden Peninsula. The excavation of examples from each of the major components of the site, such as workers' housing, commercial districts, and industrial areas, was a key element identified for future attention.

While Stone laid out detailed suggestions for additional research in the mid-1970s, conditions prevented any activity until the mid-1980s. Under contract with the Bureau of Michigan History, Patrick Martin directed an excavation project in the workers' housing quarter in 1986 (Martin 1987a). Fieldworkers stripped sod from the sites of two houses, mapped artifactual and structural evidence exposed, and then did a thorough excavation on one of the two. Significant structural details were evident, including minimal foundations, dirt or stone floors in part of the house, a small, shallow root cellar with charcoal insulation, and extensive use of charcoal around the perimeter of the house, apparently to prevent the infiltration of winter winds off Lake Michigan. Several thousand artifacts were collected, providing a detailed look into the material furnishings and belongings of a laborer's family home. Though this work was originally designed to provide data for reconstruction of a worker's house, that has not come to pass.

In 1986, archaeologists from the State Archaeologist's office also conducted small-scale excavations in connection with development projects in the park. This involved testing in the areas of porch reconstruction on the Superintendent's House, the loading dock at the Opera House, and a series of test pits down the slope from the Superintendent's House to the Sawmill site, near the harbor. These excavations revealed significant evidence of prehistoric occupation near the Superintendent's House, with fragments of chipped stone tools, pottery, and food remains abundant.

During 1987, Michigan Historical Center archaeologists did additional testing in the area where a new tourist boat dock was planned. A small number of prehistoric and historic artifacts were encountered. In 1988, MHC staff uncovered the limestone slab walkway and driveway at the Superintendent's House.

In 1991, construction work funded by a state bond issue prompted intensive archaeological excavation in two areas of the townsite: the large stock barn and the hotel privy. This project was conducted by crews from Michigan Technological University under Martin's direction(Martin, Landon et al. 1993). Plans for new construction at the stockbarn required a broad-area examination of the ruins of this very large structure. Measuring over 130 feet long and 40 feet wide, this imposing building was among the largest in the town. Excavation revealed a simple limestone slab foundation, with interior pilings to support a wooden floor, and a leanto addition on the north side. The eastern end of the building was abutted into the sloping hillside, so that access to the hay storage in the upper story was possible from the grade of the road and railroad bed. Few artifacts were encountered in this excavation, most of them related to the barn's use for livestock (horseshoes and liniment bottles).

Discovery and excavation of the hotel privy site was somewhat more challenging and rewarding. Historic photographs and oral history testimony indicated that the hotel, at least during its later phases of operation, had a two-story privy at the rear. Even though this was a detached structure, the second story of the hotel was clearly connected by a catwalk to the upper level of the privy, providing access to guests and residents of the hotel. Testimony from hotel visitors of the early twentieth century confirms the interpretation of the photographs, but the structure was removed by the early 1930s. The exact location of the privy was not known, so some exploration was necessary to relocate it.

Surface indications were not adequate, and historical photos were insufficient to pinpoint the location. Several test units were opened before finding the privy vault. Once the crew opened the upper portion of the vault, it was apparent that the large (ca. 7 ft square) masonry structure had been used during the 1920s and 30s, but the lower portions of fill were from an earlier period. Excavators removed the fill from the eastern half of the vault, leaving at least half of the deposits in place for future reference, and collected hundreds of artifacts in the process. Extensive furnishings from the hotel, such as ceramics, bottles, personal hygiene products, and food remains made up the majority portion of the collection, though there was considerable construction debris, as well, probably related to the renovation of the building. These materials offer some novel insights into the operation of the hotel, especially late in the Jackson Iron Company operating period, reflecting the tastes, diets, and styles popular at this remote industrial site.

In 1995, an Archaeological Field Methods class from Michigan Technological University carried out excavations in selected privy and trash deposits within the townsite. Aimed at investigating consumer behavior across class and status lines, the deposits chosen for sampling were spread across the known social class and occupational divisions inherent in the community. Crews excavated the privy of the Superintendent's household, two privies related to skilled workers, and trash deposits in the unskilled laborers' neighborhood. A detailed analysis and comparison revealed a great deal about household-level consumption patterns, hygiene practices, and class differentiation (Cowie 1996).

An unanticipated result of the excavation in the Superintendent's privy was the discovery of a cluster of unusual prehistoric artifacts. Apparently disturbed by the construction of the privy, the objects recovered include a copper fish hook, a chipped stone scraper, two lanceolate chipped stone bifaces, and two flat, oval objects made from

specular hematite. Around and on some of these objects was a deposit of red ochre, a dramatically red material used as a pigment. In the Upper Great Lakes, a combination of objects and materials such as this is most commonly found in association with burials, however, no human remains were present, nor was a burial pit visible. As suggested above, the original context and arrangement of these objects was probably disturbed by the nineteenth century construction of the house and privy.

IDENTIFICATION OF MARITIME AND TERRESTRIAL NEEDS FOR ARCHAEOLOGICAL RESEARCH

Maritime Resources

Virtually no systematic underwater survey or assessment has been done for Fayette. Divers have scoured the bottom of Snail Shell Harbor for at least three decades and consistently report the presence of large quantities of artifacts and structural debris. Furthermore, they have removed numerous objects over the years, turning some over to Park personnel, but simply leaving with the bulk of such materials in private possession. This was common practice before the passage of protective legislation for antiquities on the State-owned bottom lands. In recent years, it has not been allowed, but is somewhat difficult to enforce.

At minimum, a systematic survey of the harbor should be done. This should start with a remote-sensing survey using instruments such as side-scanning sonar and/or a radar survey conducted through winter ice. A diving survey to examine the bottom directly should follow, perhaps conducted over a series of summer seasons to accomplish comprehensive coverage and mapping.

The ruined docks are a remnant of the industrial complex that should be recorded and assessed, too. A simple mapping project is sufficient to record their presence. The remaining pilings should be evaluated as to their structural stability, for it is possible to incorporate them into modern use as dock pilings. For example, the community of Houghton, Michigan, has reused historic dock pilings as a base for a modern dock facility. The pilings were simple cut down near the water's surface and a moderns tructure built atop them. Given the increasing pressure for dock space in Snail Shell Harbor, this might prove to be a particularly creative form of adaptive use and preservation.

There is no current justification for retrieval of submerged artifacts beyond a sample collection. The conservation and curation costs are so high that only a strong need for specific exhibit materials or a critical preservation demand could justify collecting at this time. After a systematic survey, an assessment and development of management policies will be feasible and advisable. Among the interesting alternatives would be the establishment of self-guided diving tours, using submerged markers and/or rope guidelines. The increase in sport diving and the possibility of protecting the resource within the harbor argue in favor of such an approach. One major problem of such a approach, however, is the danger inherent in diving within an area that has active boat traffic. Weighing such alternative uses could logically follow an assessment of the value of the existing resource.

Terrestrial Resources

Fayette has a remarkable collection of well-preserved structures, preserving an exceptional representation of an industrial community of the nineteenth century. Some resources are present only in an archaeological form, however, and are not fully represented among the standing structures. Among those archaeological resources that deserve particular attention are the remains of prehistoric occupation, the remains of unskilled workers' neighborhoods, the domestic refuse of all the company town inhabitants, as represented in their yard

and privy deposits, select industrial elements of the community, such as the blacksmith shop and sawmill, and the outlying remnants of the charcoal-burning communities.

Prehistory

The prehistoric component within the park has seen only very limited attention, and even that attention was unintentional, with artifacts and features recovered in the process of examining historic features. This is partly due to the management focus applied at Fayette, focused on the historic townsite, but largely due to the nature of the resource. The prehistoric occupations of the Upper Great Lakes left ephemeral traces and residues of their presence. These were not people who constructed large mounds or extensive earthworks, as did their contemporaries in the more temperate parts of the country, nor did they build masonry apartment houses such as those that characterize the late prehistory of the southwestern US. Population densities were low, technologies were simple, and the local environment was harsh. The result was a style of life that did not lend itself to the construction of elaborate, durable, permanent domiciles, nor public works, such as forts or temples. The "footprints" of the prehistoric inhabitants of this region are not immediately visible to the people of the present.

This is not to say that these people left no tangible record of their presence; on the contrary, they left an array of durable goods and traces, from foodstuffs to tools and weapons, remnants of technological systems as well as social systems. The fact is that these traces are thinly scattered and hard to see. For this reason, reconnaissance survey in this region is a relatively ineffective means for characterizing a wide area. (By reconnaissance survey, I mean the common approach of an extensive shovel-test campaign, conducted in a few weeks, that covers hundreds of acres at an interval of 10 to 50 feet.) We cannot expect such a short-term, extensive study of the Fayette area to reveal all, or even most, of the residues of prehistoric occupation in this place. These resources are simply not substantial enough to discover them all using an extensive approach.

Instead, a long-term, more intensive approach is needed. The park should be studied at a more microscopic scale, with intensive examination of small sections each year. This could be accomplished in a systematic way, identifying an area for study each year, or at some other interval. For example, since the area around the Superintendent's House has already yielded significant evidence of prehistoric occupation, a problem-oriented project could be focused in that area. Specific questions germane to the ongoing interpretive program could be posed, and an effort made to illuminate the lives of the prehistoric inhabitants of the place.

An alternative approach, at a much reduced pace, would involve intensively examining each area that comes under some other management activity, such as trail construction, privy relocation, or building rehabilitation. In this scenario, the research would be reactive. In either case, intensive archaeological investigation will be necessary to gain any realistic understanding of the prehistoric component at Fayette, an important element of the human use of the park that has been sorely neglected.

Historic Sites

Given the primary focus of management and interpretation, the emphasis on the historic nature of Fayette has favored these resources, while the prehistoric remains must be sought after with a purpose. Even so, the effort to fully understand and creatively manage the historic resources has been somewhat haphazard, usually reactive, rather than proactive. The common approach has been to reckon with the archaeological dimension of the site only on an "as needed" basis. This is manifested in monitoring construction (such as the furnace complex rehabilitation), testing in anticipation of earth disturbance (such as the testing done by the Michigan Historical Center before porch and fence reconstruction at the Superintendent's House). While this approach does serve the goal of preservation, and can generate

useful data for reconstruction and interpretation, it often happens so late in the process that it barely precedes construction, much less planning or design.

Since the park and townsite are an intensively-managed unit, and since archaeology is a slow, labor-intensive undertaking, it seems logical to develop a program of nearly continuous research. This approach has worked well at important historical sites, such as Fort Michilimackinac, where archaeology has been ongoing since 1958, and Colonial Williamsburg. In both of these famous sites, and many others less well known, ongoing archaeology serves not only the planning, development, and management missions, but also serves as a popular and attractive continuing exhibit. Public education is enhanced by contact with active research.

Some consideration should also be given to sponsoring research beyond the current park boundaries. The townsite did not exist in a vacuum; it was especially dependent on the thousands of acres of woodlands owned by the Jackson Iron Company. A narrow-gauge railroad system connected the iron making site with its fuel source, the hardwoods of the Garden Peninsula. Thorough interpretation requires information about the fuel production system. A careful historical and archaeological investigation of the isolated charcoal-making facilities is a highly desirable element for future consideration. The locations of several charcoal burning sites are known, and might even warrant ultimate inclusion in the park. One or more may already be in State ownership, part of the DNR State Forest system.

SUMMARY RECOMMENDATIONS

- A careful survey of underwater resources, particularly in the harbor area, should be conducted. It should begin with a remote sensing component, using technologies such as side-scan sonar and/or radar, then proceed to an examination by divers.
- Prehistoric resources should be assessed by a combination of intensive small-area surveys and project-specific examinations of all areas where the ground will be disturbed by management and/or construction activities.
- Historic resources should be assessed in the same way, at minimum, but a more fruitful and systematic approach should involve ongoing, sponsored research. Following the lead of sites such as Colonial Williamsburg and Fort Michilimackinac, a continuing program of archaeological research will serve both the management and interpretive needs of the park.
- Consideration should be given to investigation of the charcoal-producing sites scattered throughout the Garden Peninsula, an important element in the site's original operation, currently missing from the interpretive plan.

Part G:
Future Research Recommendations

Part G: Recommendations of Future Research Needs

Photographic Survey

Due to the fact that it may be a considerable amount of time until funding could be obtained to prepare HABS drawings, a professionally conducted photographic survey of the site is recommended to be undertaken as soon as possible. This survey would be reminiscent of what took place in 1907, and would provide an up-to-date survey of the site as it appears today. This survey should include the use of perspective-corrected, large-format archival quality photographs, and all other requirements that are set forth in the "Photographic Specifications: Historic American Buildings Survey, Historic American Engineering Record" published by the National Register Programs Division of the National Park Service. The photographs could also be used to assist in the future preparation of HABS drawings.

Historic Structure Reports

It is recommended that a historic structure report be prepared for all of the extant buildings within the townsite, similar to the report prepared for the hotel. Priority should be give to the buildings that are open to the public for interpretation. Furthermore, each building's report should contain a thorough structural analysis.

Landscape History/Archeology

According to Maria Quinlan (in her master's thesis on Fayette), Squires established a farm at Snail Shell Harbor, not a commercial center, as portrayed by the novel.[1] The closest decent crop land is on the bluff east of the townsite and on the plain above the townsite -- not particularly close to buildings clustered near the shore. Further research is needed to resolve the nature and location of Squires' settlement.

[1] Quinlan, p. 20

Part H:
References

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Illustration Credits

Part E: Historic Chronology / Site History

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All maps depicting the townsite's appearance during each episode were produced by Dean Proctor, Cultural Resource Consortium.

Part E: Existing Conditions and Treatment Recommendations

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Figure 42 Quinn Evans / Architects, 1996. (neg. #1-1)
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Figure 50 Fayette State Historic Park Archives, Delta County, Michigan.
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Figure 52 Quinn Evans / Architects, 1996. (neg. #1-22)
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Figure 56 Quinn Evans / Architects, 1996. (neg. #2-5)
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Figure 74 Fayette State Historic Park Archives, Delta County, Michigan.
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Figure 84 Quinn Evans / Architects, 1996. (neg. #6-14)

Appendix A

fb	1500	psi			Assumes;	full bearing of all members with no notched bearing or mortise & tenon.												
fv	120	psi				no through splits or wood rot												
E	1.70E+06	psi																
Building	Floor	mem no.	joist or beam (j or b)	Nom width	nom depth	b	d	Δ limit	bending stress (psi)	spacing (in)	clear span (ft)	dl allow psf	max live bending limit psf	max. live shear limit psf	max. live Δ limit psf	max live load permitted psf	limiting factor	notes
1	1	j1	j	2	8	1 7/8	7 3/4	240	1730	16	9.67	15	159	193	228	159	bending	assumes that stair is supported and headered properly
	1	b1	b	8	10	7 7/8	9 3/4	240	1500	111	12.17	15	76	111	138	76	bending	
	1	j2	j	2	8	1 7/8	7 3/4	240	1730	16	13.67	15	72	126	81	72	bending	
	1	j3	j	2	8	1 7/8	7 3/4	240	1730	16	12.5	30	74	126	106	74	bending	
	1	b2	b	8	10	7 7/8	9 3/4	240	1500	160	6	30	230	181	798	181	shear	
	1	j4	j	2	8	1 7/8	7 3/4	240	1730	16	12	30	83	133	119	83	bending	assumes load bearing partition loads beam not joists
	1	j5	j	2	6	1 7/8	5 3/4	240	1730	16	9	30	80	131	115	80	bending	
															Min floor	72	psf	
	2	j6	j	2	8	1 7/8	7 3/4	360	1730	16	14	15	68	122	50	50	Δ	
	2	j7	j	2	8	1 7/8	7 3/4	360	1730	16	14.33	30	49	104	47	47	Δ	
	2	j8	j	2	8	1 7/8	7 3/4	360	1730	16	12	30	83	133	80	80	Δ	assumed joist span direction
	2	j9	j	2	6	1 7/8	5 3/4	240	1730	16	9.5	15	84	136	98	84	bending	
															Min floor	47	psf	
Building	Floor	mem no.	joist or beam (j or b)	Nom width	nom depth	b	d	Δ limit	bending stress (psi)	spacing (in)	clear span (ft)	dl allow psf	max live bending limit psf	max. live shear limit psf	max. live Δ limit psf	max live load permitted psf	limiting factor	notes
2	2	J1	j	2	6	1 7/8	5 3/4	300	1730	12	9.5	15	117	187	105	105	Δ	assumes no roof or level 3 load is carried by floor, may have some plaster cracking
	2	J2	j	2	8	1 7/8	7 3/4	300	1730	12	15.17	15	79	153	63	63	Δ	assumes no roof or level 3 load is carried by floor, may have some plaster cracking
															Min floor	63	psf	Public area exceeds 100 psf
Building	Floor	mem no.	joist or beam (j or b)	Nom width	nom depth	b	d	Δ limit	bending stress (psi)	spacing (in)	clear span (ft)	dl allow psf	max live bending limit psf	max. live shear limit psf	max. live Δ limit psf	max live load permitted psf	limiting factor	notes
4	1	J1	j	2	8	1 7/8	7 3/4	240	1730	12	13	15	113	184	125	113	bending	
	1	J2	j	2	8	1 7/8	7 3/4	240	1730	12	8	15	323	332	537	323	bending	
															Min floor	113		
	2	J3	j	2	8	1 7/8	7 3/4	360	1730	12	15.33	15	77	151	51	51	Δ	
	2	J4	j	2	8	1 7/8	7 3/4	360	1730	12	9.67	15	217	263	203	203	Δ	
															Min floor	51	psf	

fb	1500	psi		Assumes;	full bearing of all members with no notched bearing or mortise & tenon.													
fv	120	psi			no through splits or wood rot													
E	1.70E+06	psi																
Building	Floor	mem no.	joist or beam (j or b)	Nom width	nom depth	b	d	Δ limit	bending stress (psi)	spacing (in)	clear span (ft)	dl allow psf	max live bending limit psf	max. live shear limit psf	max. live Δ limit psf	max live load permitted psf	limiting factor	notes
7	1	J1	j	2	10	1 7/8	9 3/4	240	1730	16	15.25	15	95	146	116	95	bending	
															Min floor	95		
	2	J3	j	2	8	1 7/8	7 3/4	360	1730	12	15.25	15	78	152	52	52	Δ	
															Min floor	52	psf	
Building	Floor	mem no.	joist or beam (j or b)	Nom width	nom depth	b	d	Δ limit	bending stress (psi)	spacing (in)	clear span (ft)	dl allow psf	max live bending limit psf	max. live shear limit psf	max. live Δ limit psf	max live load permitted psf	limiting factor	notes
9	1	J1	j	2	8	1 7/8	7 3/4	240	1730	16	13.25	15	77	131	89	77	bending	
	1	J2	j	3	11	2 7/8	10 3/4	240	1730	16	15.25	15	191	261	238	191	bending	
															Min floor	77		
	2	J3	j	2	8	1 7/8	7 3/4	360	1730	16	15.25	15	55	110	39	39	Δ	
															Min floor	39	psf	
Building	Floor	mem no.	joist or beam (j or b)	Nom width	nom depth	b	d	Δ limit	bending stress (psi)	spacing (in)	clear span (ft)	dl allow psf	max live bending limit psf	max. live shear limit psf	max. live Δ limit psf	max live load permitted psf	limiting factor	notes
18	1	J1	j	2	8	1 7/8	7 3/4	240	1730	12	13.25	15	108	179	118	108	bending	assumes that joists have full bearing on masonry wall below
															Min floor	108		
	2	J2	j	2	6	1 7/8	5 3/4	360	1730	16	15.25	15	23	76	16	16	Δ	
															Min floor	16	psf	
Building	Floor	mem no.	joist or beam (j or b)	Nom width	nom depth	b	d	Δ limit	bending stress (psi)	spacing (in)	clear span (ft)	dl allow psf	max live bending limit psf	max. live shear limit psf	max. live Δ limit psf	max live load permitted psf	limiting factor	notes
26 & 27	1	J1	j	2	10	1 7/8	9 3/4	240	1730	16	11.17	15	191	215	294	191	bending	assumes that joists have full bearing on masonry wall below
	1	J2	j	2	8	1 7/8	7 3/4	240	1730	16	10.16	15	142	182	196	142	bending	assumes that joists have full bearing on masonry wall below
	1	b1	b	8	8	7 7/8	7 3/4	240	1500	112	6.5	40	160	161	450	160	bending	assumes that joists have full bearing on masonry wall below
															Min floor	142		
	2	J2	j	2	8	1 7/8	7 3/4	360	1730	16	15.33	30	39	94	38	38	Δ	
															Min floor	38	psf	

fb	1500	psi		Assumes;	full bearing of all members with no notched bearing or mortise & tenon.													
fv	120	psi			no through splits or wood rot													
E	1.70E+06	psi																
Building	Floor	mem no.	joist or beam (j or b)	Nom width	nom depth	b	d	Δ limit	bending stress (psi)	spacing (in)	clear span (ft)	dl allow psf	max live bending limit psf	max. live shear limit psf	max. live Δ limit psf	max live load permitted psf	limiting factor	notes
30 & 31	1	J1	j	2	8	1 7/8	7 3/4	240	1730	16	13	15	81	134	94	81	bending	assumes that joists have full bearing on masonry wall below & same joist size and spacing as j2
	1	J2	j	2	8	1 7/8	7 3/4	240	1730	16	7.83	15	250	252	429	250	bending	assumes that joists have full bearing on masonry wall below
															Min floor	81		
	2	J1	j	2	6	1 7/8	5 3/4	360	1730	12	9.67	30	97	168	83	83	Δ	
	2	J2	j	2	8	1 7/8	7 3/4	360	1730	12	15.33	30	62	136	51	51	Δ	
															Min floor	51	psf	

Appendix B

Introduction

This document is a summary of the sampling and historic color matching of exterior architectural elements of the extent buildings of Fayette Historic Townsite. The study has been executed as part of the Cultural Resource Management Plan, QE/A Project No. 96115-00 D. The sampling was executed on Thursday, December 12, 1996.

All paint colors have been matched to the Munsell Color Notation System using a 60X Meiji Binocular Microscope with a 6500K light source.

Although more finishes appear to exist on the structures than has been the general consensus, it should be noted that extensive deterioration of the existing finishes has occurred, often resulting to matching of fragments rather than matching of complete paint films. The fragments are often extremely soft and deteriorated, and the wood substrates have gone through extensive and accelerated aging due to the inconsistency and open state of the finishes.

The open voids of the finishes, which leave areas of exposed wood in-between the fragmented paint layers, has allowed for water to come in contact with the wood substrate. The water which has thereby penetrated the wood substrate could very likely have affected the condition of the first paint/stain layer.

Wherever possible samples were taken from surfaces that would first be most protected from the elements, and second from surfaces showing the most intact layering of coatings. Wherever the samples have been labeled as NA (not available) and/or Insufficient Data, it can be understood that either the original element has been replaced or that there was no paint/stain film remaining for sampling and identification.

Due to the extensive deterioration of all paint finishes on Buildings 101 - Town Hall, 104 - Machine Shop, and 108 - Company Office the results of historic paint color matches are not available. Color matching of Building 100 - Hotel was not executed for this study due to the recent study and results available.

This report should be used as a re- -urce in conjunction with photographic documentation, written documentation and further dialog in order to determine the "most" appropriate color scheme to be used on each building.

Lead Paint Identification

Chemical testing was executed on random samples from each structure with paint finishes still intact, and all paint layers tested positive for the presence of lead. This holds true of the earliest red stain finishes found on several of the structures. It is safe to assume that all of the existing paint finishes at Fayette Historic Townsite are lead based, and should be handled accordingly.

Building Number: 01 - Superintendent's House

Surface	Layer		Munsell Color Match
Soffit	1	prime/finish ?	10Y 8/1
	2	finish	2.5G 4/4
Soffit Skirting	Same as Soffit		
Siding	1	prime/finish?	10Y 8/1
	2 & 3	fragmented, deteriorated and heavily soiled whites	
	4	finish	2.5G 6/4 (thin wash)
	5	finish	bleached & deteriorated white
Window Casing	Same as Soffit		
Door Casing	1	prime/finish?	N9
	2	prime/finish?	10Y 8/1
	3	finish	2.5G 4/4
Door	1	prime	10YR 9/2
	2	finish base	10YR 8/4 (graining base?)
	3	thin glaze	10YR 5/6 (graining glaze?)
	4	finish base	10YR 8/4-8/2 (graining base?)
	5	thick glaze	2.5YR 2/2 (graining glaze?)
Corner Board	NA - insufficient data		heavily deteriorated
Porch Ceiling	NA - insufficient data		
Porch Trim	NA - insufficient data		

Building No. 01 Summary:

It appears that the entire structure was painted white to off white matching 10YR 8/1 with the front door possibly having a wood grained treatment. No shutters exist for color matching, although period colors would include, but not be limited to, black or dark green matching 2.5G 2\2 or 5G 2\2.

Surface	Layer		Munsell Color Match
Soffit	1	contemporary	2.5G 4/4 (heavily faded)
Soffit Skirting	Same as Soffit		
Siding	1	contemporary	N9
Window Casing	1	prime/finish?	heavily soiled white
	2	finish	insufficient fragments of green
Door Casing	1	prime/finish?	heavily soiled thin white
	2	finish	2.5G 4/4
Door	Same as Soffit		
Corner Board	Same as Soffit		

Building No. 02 Summary:

Most if not all of the existing finishes on the Doctor's House appear to be contemporary with no evidence of historic finishes remaining. Speculation of historic colors could be drawn from other structures in the townsite.

Surface	Layer		Munsell Color Match
Soffit	1	finish - stain	2.5YR 3/4
	2	prime/finish?	soiled & fragmented white
	3	finish	fragmented & deteriorated green
Soffit Skirting	Same as Soffit		
Siding	1	prime/finish?	N9.25
	2	finish	10YR 7/4
	3	finish	soiled white
Window Casing	1	prime/finish?	N9.25
	2	finish	2.5YR 3/4
	3	finish	2.5G 4/4
Door Casing	NA - insufficient data		
Door	NA - insufficient data		
Corner Board	1	prime/finish?	N9.25
	2	finish	10YR 3/4
	3	prime/finish?	soiled white
	4	finish	soiled & fragmented green

Building No. 03 Summary:

This structure shows the presence of the deep red stain matching 2.5YR 3/4 on the soffit and soffit skirting, which then shows up as a paint on the window casing. The siding was likely an off white matching 10YR 7/4. The corner board color matched a deeper yellow/red if the first finish was a primer.

Surface	Layer		Munsell Color Match
Soffit	1	finish - stain	2.5YR 3/4
	2	prime/finish?	5G 5/1 (grey)
	3	finish	N9.25
Soffit Skirting	1	finish - stain	2.5YR 3/4
	2	prime/finish?	5G 5/1 (grey)
	3	finish	2.5BG 3/2
Siding	1	contemporary	N9.25
Window Casing	1	finish - stain	N3.25 (dark grey)
	2	finish	N9.25
	3	finish	2.5BG 3/2
Door Casing	NA - insufficient data		
Door	1	finish - soiled stain	2.5G 4/4 to
Corner Board	1	prime/finish?	N9.25
	2	finish	2.5BG 3/2

Building No. 04 Summary:

The soffit and soffit skirting show the presence stain matching 2.5YR 3/4. The siding paint is contemporary. The door is a soiled stain matching 2.5G 4/4. The corner board shows the presence of a white for the first layer. The window casing has a dark grey as a first finish.

Surface	Layer		Munsell Color Match
Soffit	1	finish	2.5YR 3/4
	2	prime/finish?	N9.25
	3	finish	fragmented & deteriorated green
Soffit Skirting	Same as Soffit		
Siding	1	contemporary	10Y 8/1
Window Casing	1	prime/finish?	10YR 8/2
	2	prime/finish?	N9.25
	3	prime/finish?	N7 - very sooty
	4	finish	2.5G 4/4 - fragmented & deteriorated
Door Casing	NA - insufficient data		
Door	NA - insufficient data		
Corner Board	NA - insufficient data		

Building No. 07 Summary:

The soffit and soffit skirting have a first finish of a stain matching 2.5YR 3/4. The siding finish is contemporary and the window casing has a first finish matching 10YR 8/2 or N9.25.

Surface	Layer		Munsell Color Match
Soffit	1	finish - stain	2.5YR 3/4
	2	prime/finish?	N9.25
	3	finish	fragmented & deteriorated green
Soffit Skirting	Same as Soffit		
Siding	1	finish - thin	white/off white residue
	2	prime/finish?	sooty grey
	3	finish	N9.25
Window Casing	1	finish	10Y 8/1
	2	finish	2.5G 4/4
Door Casing	1	prime/finish?	white residue
	2	finish	2.5G 4/4
Door	NA - insufficient data		
Corner Board	1	prime/finish?	white residue
	2	finish	2.5G 4/4 - fragmented & deteriorated

Building No. 09 Summary:

The soffit and soffit skirting have a first finish of stain matching 2.5YR 3/4. The siding shows whites or off whites as the first campaign, as with the door casing and corner board. The window casing has a first finish matching 10Y 8/1.

Surface	Layer		Munsell Color Match
Soffit	1	finish - stain	2.5YR 3/4
	2	prime/finish?	minute grey fragments
	3	prime/finish?	fragments of soiled white
Soffit Skirting	1	finish - stain	2.5YR 3/4
	2	prime/finish?	minute grey fragments
	3	prime/finish?	fragments of soiled white
	4	finish	fragments of green
Siding	NA - insufficient data		
Window Casing	1	prime/finish?	N9.25
	2	prime/finish?	N6.25 (grey)
	3	prime/finish?	10YR 9/2
	4	finish	2.5G 4/4
Door Casing	NA - insufficient data		
Door	NA - insufficient data		
Corner Board	NA - insufficient data		

Building No. 18 Summary:

The soffit and soffit skirting have a first finish of stain matching 2.5YR 3/4. The window casing had a first finish matching N9.25 or N6.25 (white to grey.) The remaining elements could not be matched.

Surface	Layer		Munsell Color Match
Soffit	1	finish - paint	2.5YR 3/4
	2	finish	2.5G 4/4
Soffit Skirting	Same as Soffit		
Siding	1	prime/finish? - thin	10YR 7/4
	2	finish	N6.25
	3	finish	N9.25
Window Casing	1	prime/finish?	10YR 7/4
	2	finish	2.5YR 3/4
	3	finish	2.5BG 3/2
	4	finish	2.5BG 4/4
Door Casing	NA - insufficient data		
Door	NA - insufficient data		
Corner Board	NA - insufficient data		

Building No. 25 Summary:

The soffit and soffit skirting have a first finish stain matching 2.5YR 3/4. The siding and window casing had a first finish matching 10YR 7/4.

Surface	Layer		Munsell Color Match
Soffit	1	finish - paint	2.5YR 3/4
	2	prime/finish?	5BG 3/1
	3	finish	2.5G 4/4
Soffit Skirting	Same as Soffit		
Siding	1	finish	10YR 8/4 to 10YR 7/4
	2	prime/finish?	sooty white
	3	prime/finish?	N9.25 - sooty
Window Casing	1	finish - paint	2.5YR 3/4
	2	prime/finish?	5BG 3/1
	3	prime	N8 - sooty
	4	finish	2.5G 4/4
Door Casing	NA - insufficient data		
Door	NA - insufficient data		
Corner Board	Same as Soffit		

Building No. 26 Summary:

The soffit, soffit skirting and window casing had a first finish stain matching 2.5YR 3/4. The siding had a first finish matching 10YR 8/4 to 10YR 7/4.

Surface	Layer		Munsell Color Match
Soffit	1	finish - paint	2.5YR 3/4
	2	prime/finish?	5BG 3/1
	3	finish	2.5G 4/4
Soffit Skirting	Same as Soffit		
Siding	1	prime/finish?	10YR 8/4 to 10YR 7/4
	2	prime/finish?	N8.25
	3	finish	5G 6/2
	4	finish	N9.25 - fragmented
Window Casing	Same as Soffit		
Door Casing	NA - insufficient data		
Door	1	prime/finish?	10YR 8/4 to 10YR 7/4
	2	finish	2.5G 4/4
Corner Board	Same as Soffit		

Building No. 27 Summary:

The soffit and soffit skirting had a first finish stain matching 2.5YR 3/4. The Siding and door had a first finish matching 10YR 8/4 to 10YR 7/4.

Surface	Layer		Munsell Color Match
Soffit	1	finish - stain	2.5YR 3/4
	2	prime/finish?	7.5YR 6/4
	3	finish	2.5G 4/4
Soffit Skirting	Same as Soffit		
Siding	1	prime/finish?	sooty off white
	2	finish	7.5YR 6/6
	3	finish	N9.25
Window Casing	Same as Soffit		
Door Casing	1	prime/finish?	N9.25
	2	glaze/varnish?	light grey - thin
	3	finish	2.5G 4/4
Door	1	prime/finish?	10Y 8/1
	2	finish	2.5YR 3/4
	3	prime	N9.25
	4	finish	2.5G 4/4
Corner Board	1	prime/finish?	10YR 5/6
	2	finish	fragments of deep red/brown
	3	prime	N9.25
	4	finish	2.5G 4/4

Building No. 30/31 Summary:

The soffit, soffit skirting and window casing had a first finish stain matching 2.5YR 3/4. The doors had a second paint finish matching 2.5YR 3/4. The door casing had a first finish matching N9.25 with a second finish as a grey glaze/varnish. The corner had a yellow/red as a first finish with traces of a deep red/brown as the second finish.

It is recommended that in order to stop the current state of wood substrate deterioration on the buildings of Fayette Historic Townsite that they receive a protective paint coating. If the buildings were sound and tight at all joints and overlaps then a stain could be considered. However, due to the extensive amount of expansion and contraction over the years, cracking and an almost complete loss of painted finishes they will need extensive caulking. The caulking will then need to be covered with an opaque paint medium.

Recommended Painting Procedure:

1. Remove and/or contain existing lead paint.

   Although one approach for such a treatment has been recommended using a water wash technique, this is a sight specific recommendation and only if carried out by preservation professionals. Additional lead paint removal considerations are discussed under General Recommendations below.

   The most important factors being the appropriate handling and disposal of the lead paint, and the protection of the existing historic buildings' wood substrate.

2. Clean the surfaces to be painted.

   Although a water wash technique may not be the chosen method for removing the lead paint, it may additionally be considered to clean the extremely dirty substrate prior to receiving the primer paint.

3. Apply first primer paint layer.

   Due to the dry nature of the wood and the desire to achieve an appropriate paint bond with the substrate, it is recommended that an alkyd (synthetic oil) primer be used that is thinned with penetrol (synthetic extended) and paint thinner. This would allow the paint to have a longer drying time, which would allow the paint to penetrate the wood substrate deeper, providing a stronger bond.

4. Sanding of trim.

   Due to the age of the wood it may be found that priming will raise the grain of the current state of dry and punky wood. Although sanding could be appropriate for all wood surfaces, the cost for such a treatment would likely limit this step to trim, window and door surfaces only.

5. Application of caulk.

   Following the first prime layer and subsequent sanding, the surfaces should be dusted clean, and a paintable non-silicone caulk should be applied to fill all necessary voids in the building exteriors.

6. Apply second primer paint layer.

   Following the caulking, the entire building should receive a second primer paint layer to properly seal in all surfaces.

7. Apply finish coats.

Following the application of a second primer paint layer, two acrylic finish coats should be applied in the appropriately designated colors.

General Recommendations:

1. Spray application would be appropriate, although only if immediately thereafter the paint is brushed out.

2. Moisture readings should be taken on a daily basis to ensure that the work is executed only under optimum conditions for paint absorption and drying.

3. A review of the finish colors should be executed with the site historian and the architectural team in order to come up with an appropriate color definition where the study is incomplete (i.e.: shutters on Superintendent's House.)

4. Additional lead paint removal processes that should be considered are as follows:

   A. Washdown.

      1. Costly to execute.
      2. Covers washing of substrate prior to painting.
      3. Requires cost effective filtering of water.
      4. Must include control of water.

   B. Wet Scraping.

      1. Containment of scrapings could be costly.
      2. Protection of workers should be as with all other procedures.
      3. Controlling damage to substrate should be high priority.

   C. Dry Scrapin\Sanding.

      1. Controlling particulates and dust would be very costly
      2. Protection of individuals executing work would be most expensive.
      3. Disposal of waste would be less time consuming due to lack of need to evaporate moisture or dispose of contaminated wash water.

D. Chemical Stripper

1. May not be as fast as scraping due to small amount of lead paint residue.
2. More costly than all proposed techniques except dry scraping\sanding.
3. Additional protection of individuals required.
4. Additional disposal of waste material required.

5. It may be found that a combination of lead paint removal techniques should be used for treating surfaces of varying degrees of lead paint presence.